

THE RELATIONSHIP BETWEEN THE INDIGENOUS PEOPLES OF THE AMERICAS
AND THE HORSE: DECONSTRUCTING A EUROCENTRIC MYTH

By

Yvette Running Horse Collin

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APPROVED:

Raymond Barnhardt, Ph.D., Committee Chair
Beth Ginondidoy Leonard, Ph.D., Committee Co-Chair
Theresa Arevgaq John, Ph.D., Committee Member
Marco A. Oviedo, Ph.D., Committee Member
Michael Koskey, Ph.D., Department Chair
Todd Sherman, M.F.A., Dean, College of Liberal Arts
Michael Castellini, Ph.D., Dean of the Graduate School

Abstract

This research project seeks to deconstruct the history of the horse in the Americas and its relationship with the Indigenous Peoples of these same lands. Although Western academia admits that the horse originated in the Americas, it claims that the horse became extinct in these continents during the Last Glacial Maximum (between roughly 13,000 and 11,000 years ago). This version of “history” credits Spanish conquistadors and other early European explorers with reintroducing the horse to the Americas and to her Indigenous Peoples. However, many Native Nations state that “they always had the horse” and that they had well established horse cultures long before the arrival of the Spanish. To date, “history” has been written by Western academia to reflect a Eurocentric and colonial paradigm. The traditional knowledge (TK) of the Indigenous Peoples of the Americas, and any information that is contrary to the accepted Western academic view, has been generally disregarded, purposefully excluded, or reconfigured to fit the accepted academic paradigm. Although mainstream academia and Western science have not given this Native TK credence to date, this research project shows that there is no reason – scientific or otherwise – that this traditional Native claim should not be considered true. The results of this thesis conclude that the Indigenous horse of the Americas survived the “Ice Age” and the original Peoples of these continents had a relationship with them from Pleistocene times to the time of “First-Contact.” In this investigation, Critical Indigenous Research Methodologies (CIRM) and Grounded Theory (GT) are utilized in tandem to deconstruct the history of the horse in the Americas and reconstruct it to include cross-cultural translation, the TK of many Indigenous Peoples, Western scientific evidence, and historical records. This dissertation suggests that the latest technology combined with guidance and information from our Indigenous Peoples has the power to reconstruct the history of the horse in the Americas in a way that is unbiased and accurate. This will open new avenues of possibility for academia as a whole, as well as strengthen both Native and non-Native communities.

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This work is dedicated to the Creator of all life, the Ancestors, and to the next seven generations.

It is my prayer that this work honors you ...

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Preface

It is important to acknowledge that Native Peoples throughout the Americas have had to fight for centuries to defend themselves and protect their identities. Still today, many of the Nations within Native America are described by labels that do not even resemble that which they called themselves before Columbus' arrival to the Caribbean in 1492. Many of these labels were either descriptions or mistranslations that other Native Peoples - who were often serving as slaves, guides, or translators for the conquistadors or explorers - passed forward. These European explorers recorded their understanding of the words given to them, and those words became used by the dominant culture to identify these Nations. Despite their inaccuracy, and even provocative and disrepute nature, these words are still used today by the dominant culture. In an attempt to communicate with the dominant culture, Native Peoples have frequently also adopted these terms. Examples of these abound, such as using the word "*Navajo*," (which is a Spanish adaptation of the Tewa Pueblo word *navahu* 'u, meaning "farm fields in the valley") rather than "*Diné*" as a label for a people in the Southwest of North America, or the word "*Sioux*" (which is a slang word that translates to "little devils or demons") to describe the "*Oceti Sakowin*," or the Peoples of the "Seven Council Fires" known as the *Lakota*, *Nakota* and *Dakota* Peoples.

As a result of this, and the demeaning way in which Native Peoples have been portrayed within United States history to date, many Native Peoples are offended by the general terminology used to describe them and the "box" that inherently accompanies such words. Such terms as "Native Americans," "Indians," or "Aboriginals" may feel "fine" to some, while others consider them to be "degrading." In an attempt to be as respectful and inclusive as possible, the term "Indigenous" will often be used throughout this project to describe the original Peoples of the Americas and other parts of the world, and their descendants. In an attempt to "preserve for these communities the sovereign right and power to decide who belongs to them, without external interference" ¹ a definition of the term "Indigenous" and the groups that are defined by

¹ United Nations, Department of Economic and Social Affairs, Division for Social Policy and Development, "Workshop on Data Collection and Disaggregation for Indigenous Peoples," January 19-21, 2004: 2, http://www.un.org/esa/socdev/unpfii/documents/workshop_data_background.doc.

such a title, have not been determined. However, the United Nations document titled “Workshop and Data Collection and Disaggregation for Indigenous Peoples” states the following:

Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system.

This historical continuity may consist of the continuation, for an extended period reaching into the present of one or more of the following factors:

- a) Occupation of ancestral lands, or at least of part of them;
- b) Common ancestry with the original occupants of these lands;
- c) Culture in general, or in specific manifestations (such as religion, living under a tribal system, membership of an indigenous community, dress, means of livelihood, lifestyle, etc.);
- d) Language (whether used as the only language, as mother-tongue, as the habitual means of communication at home or in the family, or as the main, preferred, habitual, general or normal language);
- e) Residence on certain parts of the country, or in certain regions of the world;
- f) Other relevant factors.²

At times, other terms such as “Native Peoples,” “American Indians,” and “Indians” will be used interchangeably throughout this research project, as they are very familiar to those in the United States and are often used by Native Peoples, themselves. Although some have expressed their frustration at being called “Indians,” as Christopher Columbus was said to be the first to coin that term after he mistakenly believed he had landed in “India,” research has proven that Columbus in fact chose the root of this word with great particularity. The *Native Times* article titled “Native American vs. American Indian: Political Correctness Dishonors Traditional Chiefs of Old” explains this issue as follows:

The other arguable explanation [for the selection of this term] was Columbus’s use of the term “*una gest in Dios*” or “a people in God” which was reduced to “*Indios*” for everyday usage by the Spaniards and later was further changed to “Indian” as the word moved north. And what’s more we hear that in 1492 Columbus could not have thought he had reached the Indies because at that time there was no Indies, but they instead were called Hindustan.³

² Ibid.

³ “Native American vs. American Indian: Political Correctness Dishonors Traditional Chiefs of Old,” *Native Sun News* April 12, 2015, reprinted by *Native Times*, accessed February 27, 2017. <http://www.nativetimes.com/index.php/life/commentary/11389-native-american-indian-political-correctness-dishonors-traditional-chiefs-of-old>.

It is imperative to acknowledge that this same inaccurate labeling occurred with the creatures that are the main subject of this research – the Indigenous “horses” of the Americas. As Indigenous Elders and individuals shared their traditional knowledge and/or their creation stories, it became clear that their perspective regarding the “horse” was almost completely different than that of the dominant Western culture. To their ancestors, these “beings” were “sacred relatives,” rather than beasts of burden that existed to serve the whims of mankind. Therefore, the meaning of the words that were developed by the Indigenous Peoples of the Americas to address this creature are so different from those utilized by the dominant culture, that the word “horse” is actually not even a correct or compatible translation.

Indeed, terms such as “sacred dog,” “elk dog,” “deer resembler” and other English language “translations” are not precise or even necessarily accurate. As some of the Elders interviewed explained to me, such terms are often merely an attempt to find words to describe a creature in a language (English in this case) that does not have corresponding concepts. This is rather like trying to describe an eagle as a “hawk resembler” or a “sacred bird,” as neither of these terms encompasses the holy reverence and symbolism with which the eagle is viewed by many Indigenous Nations. In addition, the utilization of such terms does not indicate that the horse chronologically came “after” the dog, elk, or the deer became known to the First Peoples. Such translations were simply not necessary before first contact with Europeans. However, for the sake of communication purposes, the words “horse” or “*Equus*” will be used throughout this project when describing this “sacred relative.”

It is important to note that this research project does not offer a comprehensive survey of individuals from every North American Indigenous Nation. Indeed, many Indigenous Peoples were completely eradicated centuries ago as a result of disease and the genocidal policies of the colonial United States and Canadian governments. Therefore, this study cannot possibly capture a completely accurate and representative determination of every First Peoples’ contact-level and relationship with the horse throughout the Americas. Rather, this project attempts to highlight the inconsistencies between the two versions of history, as well as present a likely, unbiased theory as to what actually occurred.

Pilamaya! (Thank you!)

Chapter 1

Introduction

“You can wipe out a generation of people, you can burn their homes to the ground, and somehow they will still come back. But if you destroy their achievements, and their history, then it is like they never existed... just ash floating.”

(Excerpt from the movie, *The Monuments Men*. Minute 29:11-29:31)

This research project seeks to deconstruct the history of the horse in the Americas and its relationship with the Indigenous Peoples of these same lands. To date, this “history” has been written to reflect a Eurocentric and colonial paradigm, and the traditional knowledge (TK) - “knowledge and values, which have been acquired through experience, observation, storytelling, from the land or from spiritual teachings, and handed down from one generation to another”⁴ - of the Indigenous Peoples of the Americas and any information that is contrary to the accepted Western academic view has been disregarded, purposefully excluded, or reconfigured to fit the accepted paradigm. This chapter serves to provide an overview of the research processes that will be utilized to conduct this investigation. This overview will include the following: an explanation of the rationale behind the import of this research, an introduction of the researcher and project participants, a presentation of the methodology and methods that will be used, a timeline and geographical context for the project, as well as the expected benefits for academia, Indigenous Peoples, and the world.

1.1 A Eurocentric Myth

In his article titled “Essays About America’s National Myths in the Past, Present, and Future,” Ira Chernus addresses the fact that the word “myth” means “so many things to so many people”; however, “[I]n our everyday English language *myth* means a fiction or a lie. Some myths are total fictions. Though they can have powerful influence on a society, they can also be debunked by fact, which places some limit (in theory) on their influence.”⁵ For this particular

⁴ Tristan D. Pearce, et al., “Community Collaboration and Climate Change Research in the Canadian Arctic,” *Polar Research* 28, no. 1 (April 2009):13-14, doi:10.1111/j.1751-8369%20.2008%20.00094.x/epdf.

⁵ Ira Chernus, “The Meaning of Myth in the American Context,” *Mythic America* (blog), 2012, <https://mythicamerica.wordpress.com/the-meaning-of-myth-in-the-american-context/>.

research study, the Eurocentric myths regarding the existence, extinction, and migration patterns of the American horse will be further explored.

Every child who goes through the American school system is taught that the Spanish and subsequent European explorers are responsible for “reintroducing” the horse to the Americas and, therefore, to the Native Peoples. Jay F. Kirkpatrick and Patricia M. Fazio offer the following account of this claim in their article titled “Wild Horses as Native North American Wildlife”:

The precise date of origin for the genus *Equus* is unknown, but evidence documents the dispersal of *Equus* from North America to Eurasia approximately 2-3 million years ago and a possible origin at about 3.4-3.9 million years ago. Following this original emigration, several extinctions occurred in North America, with additional migrations to Asia (presumably across the Bering Land Bridge), and return migrations back to North America, over time. The last North American extinction probably occurred between 13,000 and 11,000 years ago ... In 1493, on Columbus’ second voyage to the Americas, Spanish horses, representing *E. caballus*, were brought back to North America, first in the Virgin Islands, and, in 1519, they were reintroduced on the continent, in modern-day Mexico, from where they radiated throughout the American Great Plains, after escape from their owners or by pilfering.⁶

This version of history can be found in textbooks, documentaries, magazines, television programs, and on countless websites. As the horse was inextricably linked with the idea of what constituted a “civilized” person and/or community for European cultures at the time of first-contact with the Indigenous Peoples of the Americas, this claim fits neatly – and comfortably - into Western academia’s predominantly Eurocentric paradigm. According to a research article I published, titled, “The Relationship between the Indigenous People of the Americas and the Horse: How the Dominant Culture’s View of Oral History Denied Truth,” I explain the following:

When the European explorers arrived in the Americas, they brought with them their belief that all that was “civilized” originated from their homeland and their culture. At the time of the 1500s, 1600s, and 1700s, one of the marks of “civilization” included one’s possession of the horse and one’s mastery of horsemanship skills.⁷

Indeed, ownership of Spanish horses was tied to the concept of nobility in Spain and Europe. The Andalusianworld.com website proclaims:

⁶ Jay F. Kirkpatrick and Patricia M. Fazio, “Wild Horses as Native North American Wildlife,” *Animal Welfare Institute*, revised January 2010, <https://awionline.org/content/wild-horses-native-north-american-wildlife>, 1.

⁷ Yvette J. Collin, “The Relationship Between the Indigenous People of the Americas and the Horse: How the Dominant Culture’s View of Oral History Denied Truth,” (Florence, AL: Sacred Way, 2012), 2.

Throughout its history [the Andalusian horse] has been known for its prowess as a warhorse, and prized by nobility. The breed was used as a tool of diplomacy by the Spanish government, and kings across Europe rode and owned Spanish horses.⁸

In addition to this, the horse is credited with being the key element that allowed Queen Isabella of Spain to end a war with the Moors that had gone on for many, many centuries. This is explained further in William A. Berg's book titled *Mysterious Horses of Western North America*:

A plentiful supply of fine Arabian horses had enabled the Moors to force the Spanish armies away from the Mediterranean shore. For almost 700 years they had crowded the Spaniards ever northward until they had come to the land of Castile. There at long last King John had withstood them. But King John had died and then his daughter Isabella had become queen and had sworn at her father's deathbed to drive the infidels across the sea. The task had seemed hopeless at first, but then she engaged Manuel Cortés, a childhood friend, to supply her with horses for her armies. Cortés did so well that the queen prevailed over the Moors and now one more strong campaign should prove their end, but more horses would be needed. Horses would decide the issue.⁹

As Berg goes on to describe, the Queen would give Cortés "*carte-blanche* to collect and secure all horses from anyone in Spanish lands for exclusive army use. He continues as follows:

Immediately thereafter letters of credit to Cortés were issued, enabling him to establish agents in neighboring countries that had horses, and his instructions were to secure all the horses possible, and as quickly as he could arrange for their training and deliver them to the queen's commanders in the battle against her enemy. It took only a few years and by then Cortés had that horse procuring project in high gear, and horses were delivered in great numbers to the queen's forces. When letters of credit had expired or were insufficient, the cause of Christian Spain against the infidel Moslems produced thousands of horses on credit. These horses, all together, gave Queen Isabella the strength that had before been lacking and she thrust the Moslems completely out of Spain.¹⁰

Indeed, Benjamin Breen's article, titled "'The Elks Are Our Horses': Animals and Domestication in the New France Borderlands," states the idea that the horse was a symbol for what constituted a "civilized" person and/or culture "in the context of the Great Lakes and Upper Mississippi region between 1670 and 1730"¹¹ for those of the colonizing culture is supported:

De Toni noted that four of his men deserted upon noticing horses in the lands to the south of the Illinois because "as soon as they had possession of a horse, they no longer believed themselves to be among the Savages." The increased mobility allowed by horses (and the

⁸ "History of the Andalusian Horse," *Andalusian World*, 2017, <http://andalusianworld.com/site/breed/>.

⁹ William A. Berg, *Mysterious Horses of Western North America* (New York: Pageant Press, 1960), 57.

¹⁰ *Ibid.*, 289.

¹¹ Benjamin Breen, "'The Elks Are Our Horses': Animals and Domestication in the New France Borderlands," *Journal of Early American History* 3, no. 2/3 (2013): 202, doi: 10.1163/18770703-00303002.

presence of nearby Europeans they implied) undoubtedly played a role in this desertion. But de Toni's phrasing would suggest that the symbolic associations between the horse and civility played a role as well.¹²

Although this belief system regarding the history of the horse in the Americas supports the worldview held by the dominant Western culture, it is contrary to the oral history and TK of many of the Peoples who are Indigenous to the Americas. Claire Henderson offers a concise summary of this Indigenous perspective in her article titled *The Aboriginal North American Horse*:

Dakota/Lakota Elders as well as many other Indian nations ... contend that according to their oral history, the North American horse survived the Ice Age, and that they had developed a horse culture long before the arrival of Europeans, and, furthermore, that these same distinct ponys (*sic*) continued to thrive on the prairies until the latter part of the XIXth (19th) century, when the U.S. government ordered them rounded up and destroyed to prevent Indians from leaving the newly-created reservations.¹³

Indeed, in their article titled "*Eyiniw mistatimwak: The Role of the Lac La Croix Indigenous Pony for First Nations Youth Mental Wellness*" authors Angela Snowshoe and Noel V. Starblanket provide the following example to illustrate how one of the Indigenous Native horse breeds in Canada nearly became extinct:

According to Donald Chosa Jr., Cultural Coordinator at Bois Forte Indian Reservation, the [Lac La Croix pony] became endangered when the missionaries came to the reservation in the 1940s and saw no use for the ponies. Furthermore, they felt that it was inappropriate for First Nations children to witness the ponies breeding. As a result, the majority of the breed was destroyed,¹⁴ regardless of the discernible social and historical importance of the ponies to their original caretakers.¹⁵

Although mainstream academia and Western science have not given this Native knowledge credence to date, the website titled *The Survival of Horses in Pre-Columbian America* by Terry McNamee, states that there is no reason – scientific or otherwise – that this traditional Native claim should not be considered plausible and possible:

¹² Ibid.

¹³ Claire Henderson, *The Aboriginal North American Horse* (Quebec City, Canada: Laval University, 1991), 1.

¹⁴ Michael LeGarde and Christina Woods (Producers). (2014, April 2). Native Report (Season 9, Episode 7) [Podcast]. Retrieved from <http://www.wdse.org/shows/native/watch/season-9-episode-7>, **quoted in** Angela Snowshoe and Noel V. Starblanket, "*Eyiniw mistatimwak: The Role of the Lac La Croix Indigenous Pony for First Nations Youth Mental Wellness*," *Journal of Indigenous Wellbeing*, Volume 1, Issue 2. *Te Mauri – Pimatisiwin* (Te Rau Matatini, December 6, 2016), 64.

¹⁵ Angela Snowshoe and Noel V. Starblanket, "*Eyiniw mistatimwak: The Role of the Lac La Croix Indigenous Pony for First Nations Youth Mental Wellness*," *Journal of Indigenous Wellbeing*, Volume 1, Issue 2. *Te Mauri – Pimatisiwin* (Te Rau Matatini, December 6, 2016), 64.

The idea that horses could have survived into more recent times in areas south of Alaska and the Yukon was suggested 40 years ago by archaeologist Paul S. Martin. He said that there was no reason why horses could not have survived in isolated areas of North America as late as 2000 BC. But more recent discoveries are revealing that horses may have been present in North America much longer, even right up until the time when Europeans “reintroduced” horses to the Americas.¹⁶

Indeed, this dilemma has been noted by many in Western academia, including John Canfield Ewers in his book *The Horse in Blackfoot Indian Culture*. He states as follows:

Anthropologists and historians have been intrigued by the problem of the diffusion of the European horse among the Plains Indians. It is well known that many tribes began to acquire horses before their first recorded contacts with white men. Paucity of documentation has given rise to much speculation as to the sources of the horses diffused to these tribes, the date when the first Plains Indians acquired horses, the rate of diffusion from tribe to tribe, and the conditions under which the spread took place.¹⁷

This confusion between what could be seen firsthand (deep horse cultures and superior horsemanship skills) and the conclusion that was often recorded by early conquistadors and colonialists can be clearly seen in Francis Haines’s article titled “Horses for Western Indians” as published in the magazine titled *The American West*. He states the following regarding the supposed erroneous perception that “groups of Anglo-Americans”¹⁸ had while watching the “proud buffalo hunters in Plains regalia, riding spirited horses”¹⁹ in the early 19th century:

Thus, there was no question but that the Plains Indians had been horsemen from time immemorial. The entire culture seemed to depend on the horse, and the horse-culture complex was at a high stage of development, about on a level with that of the Asiatic steppes, where horses had been used for thousands of years. All this seemed to imply that horses had been in use on the western plains for a long period. Yet once historians and anthropologists began delving into the records of early western explorers and travelers, it soon became apparent that horses had come to the western United States in comparatively recent times, and had come from the Spanish colonies to the south. Indian tradition and folklore supported this idea of recent acquisition.²⁰

¹⁶ Terry McNamee, *The Survival of Horses in Pre-Columbian America*, 2013, <http://wizzley.com/the-survival-of-horses-in-pre-columbian-america/>.

¹⁷ John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980), 1.

¹⁸ Francis Haines, “Horses for Western Indians,” *The American West* 3, no. 2 (Spring 1996): 6.

¹⁹ Ibid.

²⁰ Ibid.

Despite displays of horsemanship skills that rivaled those of the “Cossacks, Mongols, Arabs, Bedouins, and Moors”²¹ and statements from people like George Catlin who documented that, “I am ready without hesitation to pronounce the *Comanches* the most extraordinary horsemen that I have ever seen and I doubt very much whether any people in the world can surpass them,”²² Western academics and historians still circled back to support the claim that Native horses and horse cultures were somehow derivative of Europe.

Although historians and archeologists do not always agree upon dates, “it is now generally accepted that the first American Indians populated North America between 30 and 40 thousand years ago.”²³ Such a lengthy occupation would have ensured that the Indigenous Peoples of the Americas had an extensive understanding and knowledge of the geography, flora, and fauna of their territory. Their mastery of such knowledge would naturally have surpassed that of a newly arriving colonizer.

Despite this fact, Western academia still supports the initial reports of a few Spanish conquistadors who claimed that there were no horses in the Americas upon their arrival to specific geographical areas in the late 1400s. Their exploration of the Americas at the time of these reports extended solely to certain Caribbean Islands and a small portion of modern-day Mexico. In holding onto such claims, Western academia has chosen to override contrary accounts shared by Indigenous Peoples, ignore numerous sightings of vast herds of horses by early colonizers, discount the sightings of Native Peoples with horses that were recorded by subsequent explorers long before European horses were said to have escaped from the Spanish, disregard recorded accounts from settlers who arrived in the Americas in the 16th, 17th, 18th and 19th centuries, and not allow modern scientific evidence indicating the presence of *Equus* remains during the proposed extinction period (500 years ago to 12,000 years ago) to effectuate a paradigm shift.²⁴

Western science claims objectivity. Ernest Bailey and Samantha Brooks state that “[s]cience does not allow assumptions, but rather rests on experimental proof.”²⁵ Despite this purported foundation, Western science has not proven the veracity of its claim that the

²¹ Ibid.

²² Ibid.

²³ James A. Crutchfield, *The Natchez Trace: A Pictorial History* (Franklin, TN: Territorial Press, 1985), 31.

²⁴ Henry S. Burrage, *Original Narratives of Early American History. Early English and French Voyages* (New York: Unknown Binding, 1906).

²⁵ Ernest Bailey and Samantha A. Brooks, *Horse Genetics*, 2nd ed. (Oxfordshire, UK: CABI, 2013), 186.

Indigenous horse of the Americas did not survive the last “Ice Age” (Wisconsin Glaciation) even though scientists have the technology within the field of equine genetics to do so.²⁶ Indeed, prominent equine geneticists routinely pepper their academic papers with such quotes as the following, which serves as the opening of a scientific paper titled “Genetic Analysis of the Venezuelan Criollo Horse”:

After the extinction of the North and South American *Equus* species about 10,000 years ago, from causes still not completely understood,²⁷ (see Clutton-Brock, 1996), horses only returned to the American continent (the New World) with the second voyage of Christopher Columbus in 1493.²⁸

This “claiming without proof,” which in this case has been labeled as “science” and “history,” continues to denigrate and distort the history of many of the Indigenous Peoples of the Americas. Likewise, it continues to provide a distorted foundation upon which other misconceptions and assumptions are made within other academic disciplines.

As their relationship with the horse was – and in many cases still is – a critically important life element historically, culturally, and spiritually for many Native Nations and people of Native descent throughout the Americas,²⁹ this dominant Western cultural claim has served as a fundamental attempt to diminish such cultures by asserting a Eurocentric position of dominance. In making this claim, the dominant Western culture is saying, “Without us, you would not have these sacred and critical elements of your culture,” and therefore, “Your culture is derivative of our own.”

Although Western science has focused surprisingly little effort on proving the validity of its claim, archeologists have unintentionally located evidence of *Equus* remains during the purported extinction period while testing samples at archeological sites across North America. An example of this can be found in *FAUNMAP: A Database Documenting Late Quaternary Distributions of Mammal Species in the United States*. Scientific evidence of *Equus* remains and

²⁶ Collin, Yvette J., “Deconstructing Western Science with regard to the History of the Indigenous Horse of the Americas,” paper presented at the Canadian Indigenous/Native Studies Association (CINSA), Regina, Saskatchewan, Canada, June 2016.

²⁷ Juliet Clutton-Brock, “Horse in History,” 1st ed. *Horses Through Time* (Olsen S, ed.). Dublin: Roberts Publishers, (1996), 83-102., **quoted in** Ernest Gus Cothran, et al., “Genetic Analysis of the Venezuelan Criollo Horse,” *Genetics and Molecular Research* 10, no. 4 (2011): 2394, doi: <http://dx.doi.org/10.4238/2011.October.7.1>.

²⁸ Ernest Gus Cothran, et al., “Genetic Analysis of the Venezuelan Criollo Horse,” *Genetics and Molecular Research* 10, no. 4 (2011): 2394, doi: <http://dx.doi.org/10.4238/2011.October.7.1>.

²⁹ Christina Rose, “‘Horse Nation’ Documentary Explores Lakota Culture, Horse Relatives,” *Indian Country Media Network*, September 16, 2014, <http://indiancountrytodaymedianetwork.com/2014/09/16/horse-nation-documentaryexploreslakota-culture-horse-relatives-156863>.

fossils were found at various archeological sites throughout North America outside of the time periods accepted by Western science for the horse and up until recent Pre-Columbian historical times. These sites were located in the following states: Arizona, Colorado, Georgia, Kentucky, Montana, North Dakota, New Mexico, New York, Ohio, South Dakota, Washington, and Wyoming.³⁰ Interestingly, researchers later categorized many of these findings of *Equus* as “OUT”, which they define to mean “unit of finding questionable.”³¹

In addition, Western scientists and archeologists have also located *Equus* bones and other remains that have been scientifically confirmed within the supposed extinction period. Horse artifacts have also been discovered in pre-Columbian ruins. For example, in her book titled *In Plain Sight: Old World Records in Ancient America*, Gloria Farley describes and cites numerous instances of artifact evidence of pre-Columbian horses in America, each of which were discovered in the southeastern region of the United States.³² Findings such as these serve to give credence to the Indigenous viewpoint.

From the late 1400s until the mid-1800s, the dominant Western culture’s academic establishment claimed that the horse originated in Europe. As there is no record of Columbus having seen horses when he landed in the Caribbean in 1492, it is possible that it was their belief at the time – and, therefore, their truth – that horses did not exist anywhere in “The New World” prior to their “discovery” of it.

However, if we are to believe that all of the wild horses across the Americas today are descendants of those horses brought over by the Spanish and other early explorers, it is important to look at the reality of the conditions at the time. For example, the Spanish ships were small in size and the traveling conditions were detrimental to the health of the horses being transported.³³ Therefore, a great number of the horses that were actually loaded onto these Spanish ships did not survive the voyage to the Americas.³⁴

The image on the next page (Figure 1) was taken from Pablo Pérez-Mallaína’s book titled *Spain’s Men of the Sea: Daily Life on the Indies Fleets in the Sixteenth Century*. It is common

³⁰ Russell W. Graham and Ernest L. Lundelius, Jr., *FAUNMAP: A Database Documenting Late Quaternary Distributions of Mammal Species in the United States* (Springfield: Illinois State Museum, 1994).

³¹ Ibid, 25.

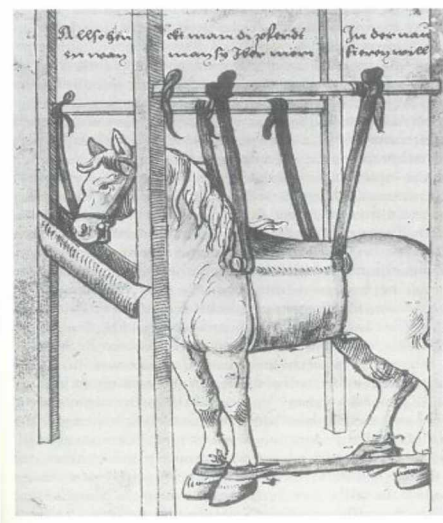
³² Gloria Farley, *In Plain Sight: Old World Records in Ancient America* (Columbus, GA: ISAC Press, 1993).

³³ Dr. Marco Oviedo, interview by Yvette Running Horse Collin, in Chimayo, New Mexico, August 20, 2016.

³⁴ Michael Quinion, “Horse Creature.” *World Wide Words: Investigating the English Language Across the Globe*, December 13, 2014, <http://www.worldwidewords.org/qa/qa-hor4.htm>.

knowledge that horses can develop colic easily (severe stomach problems that can lead to death) if they are not provided the correct environmental and feeding conditions. Pérez-Mallaina states the following regarding the abysmal living conditions that both people and animals were subjected to on these roughly two to three-month voyages:

... some readers will recall that peasants customarily shared their houses with their farm animals. But the sailors and passengers were also obliged to share their scarce living space with all sorts of animals, some of them carried voluntarily but most of them involuntarily. In effect, the ships' crews faced serious competitors in the struggle to find a free space. Some competitors were inanimate objects, since boxes and chests with clothing and personal effects were customarily placed on the decks, plus the passengers' food, which could not be kept in the storerooms below deck. In addition were the nautical apparatuses stowed on the bridge, plus the capstan, the cook stove, and even the masts; all of these occupied space. Then there were the animals carried on board. A caravel of sixty-five *tonales* that departed in 1507 toward Hispaniola carried, besides its crew and eighty-three passengers, eighteen mares and twelve yearling calves. On this voyage, the animals traveled as cargo ... Passengers customarily carried live animals to slaughter during the voyage, in order to have fresh meat ... We have testimonies that these animals shared places on the deck with owners who did not want to lose sight of them, lest they fall into the hands of someone determined to have a feast at their expense. An English sailor commented that, despite the danger unleashed by a tremendous storm, no one could resist smiling at the sight of seasick pigs staggering around the decks vomiting.³⁵



System for transporting horses on a ship. Drawing by Christoph Weiditz, 1529. Biblioteca Nacional, Madrid.

Figure 1 –System for Transporting Horse on Ships³⁶

³⁵ Pablo E. Pérez-Mallaina, *Spain's Men of the Sea: Daily Life on the Indies Fleets in the Sixteenth Century*, translated by Carla Rahn Phillips (Baltimore: Johns Hopkins University Press, 2005), 132.

³⁶ Perez-Mallania, *Spain's Men of the Sea*, 133.

There are a number of theories regarding the origin of the term “Horse latitudes,” which are located about 30 degrees north and south of the equator. “According to legend, the term comes from ships sailing to the New World that would often become stalled for days or even weeks when they encountered areas of high pressure and calm winds ...to conserve scarce water, sailors would sometimes throw the horses they were transporting overboard.”³⁷ However, one theory that is considered very reliable is taken from *Historia General y Natural de las Indias*, which was written by Gonzalo Fernández de Oviedo y Valdés in 1535. This theory explains that, “mariners gave it this name because many brood mares being shipped from Spain to the Canaries died on board.”³⁸

Despite facts such as these, it was not until Joseph Leidy and Robert W. Gibbes’s work, “Meeting for Business, Sept. 28, 1847; On the Fossil Horse of America; Description of New Species of Squalides from the Tertiary Beds of South Carolina,”³⁹ was published in 1847 that Western academia began to accept the idea that the horse had existed on the North American continent before the arrival of the Spanish conquistadors. However, upon this acceptance, they became adamant that the extinction of *Equus* in the Americas must have occurred many thousands of years prior to first European contact. Therefore, despite physical archeological evidence proving the ancient presence of the horse in the Americas, the fact that the horse knowledge and husbandry practices of the Indigenous Peoples of the Americas did not mirror those of the European cultures, and the fact that many Native Peoples were seen with horses when explorers first encountered them, Europeans were still credited with introducing the horse and horse culture to the Indigenous Peoples.

Despite a number of subsequent technological advances, and a vast expansion regarding the number of relevant archeological, paleontological, and zoological discoveries, Western academia’s version of the history of the horse in the Americas has evolved very little since

³⁷ “What Are the Horse Latitudes?,” *National Ocean Service*, June 6, 2014, <http://oceanservice.noaa.gov/facts/horse-latitudes.html>.

³⁸ Gonzalo Fernández de Oviedo y Valdés, *Historia General y Natural de las Indias: Islas Tierra firme del Mar Oceano*. Alicante: Biblioteca Virtual Miguel de Cervantes, 2007, **quoted in** Paul Wiele, “Horse Latitudes,” *World Wide Words: Investigating the English Language Across the Globe*, January 5, 2008, <http://www.barrington220.org/cms/lib8/IL01001296/Centricity/Domain/480/Horse%20Latitudes.pdf>.

³⁹ Joseph Leidy and Robert W. Gibbes, “Meeting for Business, Sept. 28, 1847; On the Fossil Horse of America; Description of New Species of Squalides from the Tertiary Beds of South Carolina.” *Proceedings of the Academy of Natural Sciences of Philadelphia* 3, no. 11 (Sep. - Oct. 1847): 262-69. <http://www.jstor.org/stable/4058414>.

Leidy, the “founder of paleontology in the United States,”⁴⁰ made his findings public more than 150 years ago.

1.2 Researcher Background

As Indigenous Peoples have historically experienced exploitation at the hands of non-Indigenous researchers, many are wary of cultural outsiders who wish to conduct academic research about their cultures and within their communities.^{41 42} In light of this, it is my intent to approach this topic and the Indigenous research participants from the perspective of a cultural “insider.” As a woman of primarily Native heritage (Nakota, Cheyenne, Arapaho, Comanche and Mayan on my mother’s side and Nakota, Cherokee, Choctaw, Jewish, Scottish and Nordic on my father’s side), I am uniquely positioned to interact as an “insider” with Peoples from many different cultures and Native Nations.

As I grew up “urban Indian” and my mother was trying desperately to pass as “white” in the hopes of avoiding ethnic persecution, my upbringing was not tied to a particular reservation or Native Nation. My mother experienced a great deal of prejudice as an Indigenous woman in America. Accordingly, she attempted to shield me from this by marrying a man who was a Dutch citizen when she was already pregnant with me. She also described both herself and the man who was listed as my biological father on my birth certificate as “white,” and gave me a completely European name.⁴³ Later in life she would tell me that these things were the best gifts she could ever have given me, as with a name of French and Dutch origin and an adjusted birth certificate “people would never know” that I was a Native woman. Therefore, I would not have to “clean toilets” for a living like she did. As her marriage did not last long, my siblings and I were raised by a single mother whose educational abilities and job opportunities were limited. Therefore, we did not have enough money to be able to afford to have horses or for me to have exposure to them.

⁴⁰ “Joseph Leidy,” *Encyclopædia Britannica*, last updated on July 20, 1998, <http://www.britannica.com/EBchecked/topic/335394/Joseph-Leidy>.

⁴¹ Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books Ltd., 2012).

⁴² Joan Parker Webster and Theresa Arevgaq John, “Preserving a Space for Cross-cultural Collaborations: An Account of Insider/Outsider Issues,” *Ethnography and Education* 5 no. 2 (July 2010): 175-91, doi:10.1080/17457823.2010.493404.

⁴³ As an adult, I made the decision to correct this by replacing the European middle name she had chosen for me with my maternal grandfather’s surname, “Running Horse.”

As a result of these things, I did not grow up around my Peoples' traditional knowledge surrounding the horse or receive any dominant culture training regarding the horse. The only formal education I received regarding the history of the horse in the Americas during my early years was a few paragraphs from the history and/or social studies textbooks that were assigned to us in my middle school and high school. These books credited Columbus with introducing horses to the Americas in the late 1400s. As is the case with most Americans, I had no reason to question whether or not what I was being taught in school was factually correct.

Due to the training I received from my mother about the importance of meeting the dominant Western culture's benchmarks for success, as well as my determination to help my family and community, I did pursue higher education. My undergraduate work was completed at The Johns Hopkins University in Baltimore, Maryland (a BS in Writing Seminars), and I received a Joint Master's Degree in Journalism and Latin American/Caribbean Studies from New York University in New York City. I did not study the history of the horse at either of these institutions or during my subsequent years as an investigative reporter. However, my level of exposure to "horse medicine" and Indigenous TK surrounding the horse dramatically increased beginning in 2006. For the purposes of this research project, the term "horse medicine" or "spirit horse medicine" will be used to refer to any healing and/or spiritual work that occurs through or around the horse.

The incidents that stimulated this shift are described in an article I published (2014) titled "The Medicine Horse Way: The Indigenous Peoples of the Americas and their Traditional Horses":

In 2006, my world would be forever changed. I was kidnapped, drugged (overdosed in an attempt to kill me), gang raped, and left for dead. Although my physical body would survive this tragedy, there was no promise of a "normal life" available to me after this occurred. I suffered from ... Post Traumatic Stress Disorder (PTSD), my nervous system was destroyed, the damage to my organs was severe, and I was unable to eat or sleep in any sustainable fashion.^{44 45}

The level of post-traumatic stress, physical, and psychological injury that I suffered as a result was so severe that medical professionals explained that modern medicine had no cure for

⁴⁴ Yvette Collin, "The Medicine Horse Way: The Indigenous Peoples of the Americas and Their Traditional Horses," paper presented at the World Indigenous Peoples' Conference on Education (WIPCE), Honolulu, HI, May 2014, 3.

⁴⁵ This was reported to the Federal Bureau of Investigation (FBI). As the perpetrators belong to organized crime, the FBI is handling it and there is no further commentary.

me. However, during this time I received a gift from a family who lived on a New Mexico Pueblo. The man in this family is considered to be a “medicine man.” The role and description of the term “medicine man” when referring to Indigenous Peoples may differ between Native Nations. However, for the purposes of this research project, the term “medicine man” or “medicine woman” will be used to describe a person who is understood by his or her community to be able to aid in spiritual, emotional, mental and physical healing with their knowledge of traditional ceremony, prayers, songs, and/or medicinal animals, plants, and herbs.

This man had grown up with access to his People’s TK regarding the healing properties of the horse. As the Native women of his Nation and surrounding Nations have been the victims of rape and other life-threatening abuses since the colonizing cultures first infiltrated their communities hundreds of years ago, his Peoples have developed ways to help heal the “incurable” with the help of their relative, the horse. Sadly, as the colonial mindset still permeates the Americas, this “medicine” is as needed today, as it was hundreds of years ago. Andrea Smith explains more in her book titled *Conquest: Sexual Violence and American Indian Genocide*:

When a native woman suffers abuse, this abuse is an attack on her identity as a woman and an attack on her identity as Native. These issues of colonial, race and gender oppression cannot be separated. This fact explains why in my experience as a rape counselor, every Native survivor I ever counseled said to me at one point, “I wish I was no longer Indian.”⁴⁶

The following statistics are provided in the article by Lyndsey Gilpin titled “Why Native American Women Still Have the Highest Rates of Rape and Assault”:

A new Department of Justice study shows that over 2,000 women surveyed, 84 percent of Native American and Alaskan Native women have experienced violence, 56 percent have experienced sexual violence, and over 90 percent have experienced violence at the hands of a non-tribal member ... Experts say these record numbers still underestimate the number of women affected by violence.⁴⁷

During a time when I was in desperate need of healing, he gifted me with two horses - a red roan mare that had been trained (according to his People’s traditions) to protect him during ceremony and spiritual battle - and her four-day-old paint filly, which he had seen prior to her

⁴⁶ Andrea Smith, *Conquest: Sexual Violence and American Indian Genocide* (Boston: South End Press, 2005), 8.

⁴⁷ Lyndsey Gilpin, “Why Native American women Still Have the Highest Rates of Rape and Assault.” *High Country News* (June 7, 2016): <http://www.hcn.org/articles/why-native-american-women-still-have-the-highest-rates-of-rape-and-assault>.

birth in a vision in conjunction with my healing. The healing I received is partially described as the following:

Within a few months-time my family was able to secure some land, erect fencing, and move “Nakota Wind” and “Cheyenne Faith” to their new home on our land in a mountain canyon meadow. Although I could feel little more than terror on most days, during my time with these animals I experienced moments where I was able to believe that I was loved and safe. During such times, I could access my memories more readily, my PTSD symptoms lessened, and my feelings of hopelessness were greatly reduced. My physical injuries also began to heal more rapidly. At times, the bursts of energy that I felt coming through these animals and into my mind and body threatened to knock me to my knees.⁴⁸

Years later, in an attempt to better explain to other people about the powerful waves of energy that came from these horses into me, I began researching modern-day science around equines and/or the brain. Scientists have discovered that horses emit “alpha waves” – the same waves emitted by humans during prayer - and they are beginning to recognize that the emission of such waves can be beneficial in treating brain injuries. They call this type of therapy/treatment “Neurofeedback,” which is defined as follows:

... biofeedback for the brain and the body. It is a painless and drug-free way of helping an injured brain return to a healthy state ... Faster brainwaves focus attention, enable planning, organization, and quick wits.... After trauma, fever, bad diet, or exposure to drugs/toxins, brainwaves may slow to whatever energy level can be supported based on available nutrients ... Neurofeedback can reawaken and help the brain, and the body it controls, along the road to recovery.⁴⁹

My education and exposure to the Indigenous TK surrounding the horse increased as I received spiritual visions from my Ancestors regarding this topic, and as I conducted pre-research with Native Elders and spiritual people regarding the history of the horse in the Americas. My journey gained momentum as my family began to gather representatives of what is left of the Indigenous horse of the Americas. I now oversee a preservation effort (125 + horses.) This enables me to observe these animals in as close to natural conditions as possible. This place is called Sacred Way Sanctuary and it is located in Florence, Alabama.

As I have witnessed and experienced firsthand what these horses can do spiritually, I do not sell horses. In keeping with the traditions of my Plains Indian ancestors, I am of the belief

⁴⁸ Ibid., 4.

⁴⁹ “EEG neurofeedback,” *Noble Acres: Horses Helping Humans*, 2017, <http://www.nobleacres.org/neurofeedback.php>.

that “medicine” - or “that which helps one to connect to the Creator” - cannot be bought or sold. Therefore, these horses are gifted to those who will agree to see them from this perspective and allow them the opportunity to continue to procreate. Sacred Way Sanctuary has had visitors from all over the world. These horses live in family bands of their choosing, and our stallions stay with their mares year-round. The foals remain within the family dynamic until they are weaned, which is anywhere from between six months to one year of age. There are two ways in which the environment the sanctuary provides for these horses differs from the time they spent living freely with my Indigenous ancestors. First, due to modern day conditions, we must utilize fencing, and secondly, my herds have limited space due to the fact that they cannot roam freely and set their own territorial boundaries.

1.3 Project Participants, Timeline, and Context

It has been my experience that my family’s commitment to the preservation of these horses and the traditional practices surrounding them has served to strengthen the level of trust between myself and project participants. I have conducted years of pre-research with the following people: Native Elders and ceremonial leaders from a number of Native Nations within North America, Indigenous medicine people and/or Holy People (referring to those individuals who regularly connect to the Ancestors and bring messages from Heaven back to their people), the children and/or grandchildren of tribal and spiritual leaders; both Indigenous and non-Indigenous caretakers of what is left of these populations of horses, equine scientists and practitioners, archeologists, people who possess family collections of Native artifacts (amateur archeologists), and academics.

Due to protocol issues, once the formal interview process began I re-approached many of the individuals with whom I had conducted pre-research to request formal interviews for this project. Some did not feel comfortable having their TK recorded for Western academic purposes. Some of these participants referred me to another person within their community or Nation who they felt had the authority to speak about these issues “on record.” Likewise, as some of the knowledge I gained about the horse and horse stories was gifted to me within Indigenous ceremonial contexts, not all of it is considered appropriate to share in an academic format.

Although my pre-research with regard to this topic began as early as 2006, my formal interviews and the further dissection of a number of limited edition and out-of-print publications

that include little known firsthand accounts of “Native horses” and/or Natives with horses in the Americas in the 1500s, 1600s, and 1700s, was conducted from January 2015 through August 2016. I have collected oral history, creation stories, and other forms of TK from at least seven Indigenous Peoples/Nations throughout the Americas. Among these tribes are the *Lakota*, *Dakota*, and *Nakota* Peoples (the *Oceti Sakowin*), the Cheyenne, the Choctaw, the Blackfoot, the *Diné* (Navajo), the *Ojibwe*, and some of the Pueblos in the New Mexico area.

1.4 Methodology and Methods

In order to ensure that this research is performed in a manner that is reflective of the types of projects that have import to Indigenous Peoples and their communities, it is critical that the research methodology is aligned with an Indigenous ontology, epistemology, and axiology.⁵⁰ In the article titled “Preserving a Space for Cross-cultural Collaborations: An Account of Insider/Outsider Issues,” Webster and John highlight a common difficulty within cross-cultural research:

... [C]onversations are underscored by epistemological differences and methodological dilemmas stemming from the often incongruous fit between methods of collecting and analyzing and presenting data that characterize the Western academic tradition and Indigenous ways of knowing, communicating and sharing knowledge.^{51 52}

Therefore, an indigenous research paradigm that includes Critical Indigenous Research Methodologies (CIRM) and relies heavily upon collaboration with participating communities and/or individuals, and is “grounded in the Indigenous values of responsibility, respect, relevance, reciprocity, relationships, and resiliency”⁵³ has been chosen. As a number of both Indigenous and non-Indigenous Elders encouraged me to pursue this topic during my initial pre-

⁵⁰ Shawn Wilson, *Research Is Ceremony: Indigenous Research Methods* (Halifax, Nova Scotia: Fernwood Publishing, 2008), 15.

⁵¹ Bryan Brayboy and Donna Deyhle, “Insider-Outsider: Researchers in American Indian Communities,” *Theory into Practice* 39(3):163-169 (August 2000) **quoted in** Joan Parker Webster and Theresa Arevgaq John, “Preserving a Space for Cross-cultural Collaborations,” *Ethnography and Education* 5(2):175-191, (June 2010), 177.

⁵² Joan Parker Webster and Theresa Arevgaq John, “Preserving a Space for Cross-cultural Collaborations,” *Ethnography and Education* 5(2):175-191, (June 2010), 177.

⁵³ Candace Kaleimamoowahinekapu Galla, Keiki Kawai’ae’a, and Sheila E. Nicholas, “Carrying the Torch Forward: Indigenous Academics Building Capacity Through an International Collaborative Model,” *Canadian Journal of Education* 37, no.1 (2014), Abstract.

research phase, it is my intent that this community-based, collaborative spirit be continued throughout the research process.

In order to better understand the social issues surrounding this topic, I utilized Grounded Theory (GT) to enable me to develop a plausible and well-founded theory regarding the reasons behind the behavior and reactions of both non-Indigenous and Indigenous Peoples and societies with regards to this topic. According to The Grounded Theory Institute, the following statement explains what grounded theory entails:

Although many call Grounded Theory a qualitative method, it is not. It is a general method. It is the systematic generation of theory from systematic research. It is a set of rigorous research procedures leading to the emergence of conceptual categories.⁵⁴

If it is indeed a myth that the Indigenous horse of the Americas did not survive the last “Ice Age,” and Native Peoples did have a horse culture that preceded the arrival of the Spanish in the late 1400s, how is it that the current Western academic belief system has continued for centuries? How is it that newly arriving explorers – such as Sir Francis Drake - and settlers could see herds of wild horses with their own eyes, and witness Indigenous Peoples with advanced horse husbandry techniques that were completely different than their own, and still accept the statements to the contrary that were offered to them initially by the Spanish?

Qualitative methods, such as participant observation, interviews with Indigenous Elders, medicine people, scientists, horse experts, and reproductive geneticists, as well as analysis of written historical, academic, and scientific records, are utilized to conduct this research. This qualitative data that I gather will be coded in order to “pinpoint ... what [I] see in each bit of data, make ... comparisons with other data, ... provide ... short-hand labels for segments of data”⁵⁵ and allow for a grounded theory to emerge regarding the behavior of societies around this topic.

It is important to note that Western science now has the technology to complete the genome sequencing for the Ancient North and/or South American horse. Initially, the design of this project included comparing the DNA of the horses at my Sanctuary with the genome sequencing of ancient North and South American horses. However, at the time such sequencing

⁵⁴ “What Is Grounded Theory?” *The Grounded Theory Institute*, 2008, <http://www.groundedtheory.com/what-is-gt.aspx>.

⁵⁵ Jonathan A Smith, ed., *Qualitative Psychology: A Practical Guide to Research Methods*, 2nd ed. (Great Britain: Sage Publications, 2008), 82.

had not been completed. However, in 2013 results were published that indicated that genome sequencing had been completed on a Middle Pleistocene era horse (dated from approximately 560,000 -780,000 years before present (kyr BP) from the Yukon area. In addition, these scientists sequenced the genome of a late Pleistocene horse (43 kyr BP) for comparison purposes.⁵⁶ Continued work in this area, especially in conducting genome sequencing for ancient North and South American horses from the Holocene period (approximately 11, 700 years before present), would allow for surviving horses to be tested to see if matching markers can be found. If so, we can scientifically deduce that the ancient North and/or South American horse, indeed, survived the Ice Age.

I have been told by a number of Native Elders from various Native Nations that there were “many types of horses” that survived the last Ice Age, not just a single type or breed of horse. This factor will need to be taken into consideration when performing the subsequent genetic testing. For example, since the genome sequencing of a Yukon horse from the Middle Pleistocene era has now been performed, then I would select my leopard spot curly appaloosa stallion whose parents and grandparents are from the *Aishihik* Lake area in Canada to test against this sample, rather than my Southern Native-line horses. In order to address this issue, I have started the process of locating an equine genetics team that would be interested in performing such work, as well as securing the funding to support such work.

1.5 Summary

The dominant Western academic culture has historically categorized the oral history and TK of Indigenous Peoples around the world as “myth,” while holding up their own preferred renditions of history as “truth.” However, a preliminary examination of mainstream Western science and academia’s treatment of the history of the horse in the Americas shows that the “myth” likely lies within their own version of history. Contrary to what the dominant Western culture and academia have presented to the world for centuries, they do not have scientific or historical proof that the ancient North and South American horse died out during the last Ice

⁵⁶ Ludovic Orlando, Aurelien Ginolhac, Guojie Zhang, Duane Froese, Anders Albrechtsen, Mathis Stiller, Mikkel Schubert, et al. “Recalibrating Equus Evolution Using the Genome Sequence of an Early Middle Pleistocene Horse.” *Nature* 499, no.7456 (July 4, 2013): abstract, <http://www.nature.com/nature/journal/v499/n7456/full/nature12323.html>.

Age, nor that the Native Peoples did not already have an established horse culture upon the arrival of the first Spanish horses to mainland America in 1519.

With an abundance of evidence suggesting the plausibility of the explanation offered by many Indigenous Peoples of the Americas, it would be irresponsible for us not to “take another look.” Reconstructing the history of the horse in the Americas to include any updated and/or missing information will accomplish the following: provide a more complete and accurate view of history, help to elevate Native Peoples and their TK to a more unbiased and appropriate place within academia, aid in preserving this knowledge for future generations, help academic scholars to be able to stand by their findings rather than continuing to defer to previous academic authority, and likely help to save what is left of these endangered animals.

Chapter 2

Literature Review

The investigation being conducted in this project challenges Western academia's understanding of what constitutes "factual knowledge" with regard to the history of the Indigenous Peoples of the Americas and the horse. In addition, it also challenges the predominant theory regarding the derivative nature of horse history and culture throughout Indigenous societies within the Americas, as well as the origin of such horses. This chapter seeks to examine some of the ways in which conducting a standard literature review on this topic is compromised, demonstrate why a deconstruction of the current theory regarding this topic can help to replace incorrect and biased assumptions of the past with more accurate and comprehensive knowledge, offer a review of certain relevant research and literature on this topic, and address the importance of this general "issue" to academia.

2.1 Challenges in Conducting a Relevant Literature Review

Performing a standard, academic literary review in this field is compromised by the nature of the methodologies and methods that have been historically used to assemble the majority of the prior work that has been published on the subject, as well as by the fact that the majority of Indigenous societies in the Americas preferred to preserve and pass their TK forward orally, rather than in the written format preferred by the dominant Western culture. This is explained further by Ted Palys:

... the European (and academic) bias toward paper documentation, coupled with the fact that Aboriginal cultures have been oral and/or used other media (e.g., wampum belts) to transmit information from generation to generation, have left aboriginal peoples among those peoples who, from the European perspective, have no history."^{57 58}

Up until the latter part of the 1900's, traditional knowledge (TK) and Indigenous systems

⁵⁷ Ted S. Palys, "Prospects for Aboriginal Justice in Canada," last updated November 2, 1996, <http://www.sfu.ca/~palys/prospect.htm>.

⁵⁸ Wolf, Eric R. *Europe and the People Without History*. Berkeley: University of California Press, 1982, **quoted in** Ted S. Palys, "Prospects for Aboriginal Justice in Canada," last updated November 2, 1996, <https://www.sfu.ca/~palys/prospect.htm>.

of learning were largely disregarded, forbidden, and/or denigrated by the dominant Western culture and academia. Indeed, the Canadian and United States governments deemed many traditional Indigenous spiritual and religious practices - or aspects of these practices - illegal. In the following quote of the article by Daniel Zielske titled “Tolerance and Subjection in Native American Religious Practices,” a summary of what occurred in the United States regarding this issue is provided:

The United States of America prides itself on the ideal of “freedom of religion,” yet Native American religions were outlawed until 1978, when then President Jimmy Carter signed the Freedom of Religion Act. For the first time, Native Americans were allowed to practice their religion openly.⁵⁹

A description of what occurred in Canada regarding this issue can be found in Palys’s article:

The history of Indian administration in Canada ... is one of increasing control by government over natives. A partial list includes: (a) attempts to suppress “pagan rituals” and promote Christian religions by banning important cultural festivals such as the Potlach, Thirst Dance, and Sundance; ...⁶⁰

Ceremonies, such as the Sundance, received “special treatment” in the United States, as well. The following is an excerpt from a policy that the U.S. Office of Indian Affairs issued to its agents in 1921:

The Sundance, and all other similar dances and so-called religious ceremonies are considered “Indian offenses” under existing regulations, and corrective penalties are provided. I regard such restrictions as applicable to any religious dance which involves ... the reckless giving away of property ... frequent or prolonged periods of celebration ... in fact any disorderly or plainly excessive performance that promotes superstitious cruelty, licentiousness, idleness, danger to health, and shiftless indifference to family welfare.⁶¹

In addition, the educational institutions and governments of both Canada and the United

⁵⁹ Daniel P. Zielske, “Tolerance and Subjection in Native American Religious Practices,” *Forum on Public Policy*, 2010, <http://forumonpublicpolicy.com/vol2010.no4/archive.vol2010.no4/zielske.rev.pdf>.

⁶⁰ Palys, “Prospects for Aboriginal Justice,” <http://www.sfu.ca/~palys/prospect.htm>.

⁶¹ Native American Rights Fund. “‘We also have a religion’: The American Indian Religious Freedom Act and the Religious Freedom Project of the Native American Rights Fund. Announcements,” Winter 1979, <http://www.narf.org/nill/documents/nlr/nlr5-1.pdf>.

States also forbade Indigenous Peoples to speak their own languages.⁶² Indeed, Andrea Smith describes the following regarding the colonialists' viewpoint of the Indigenous Peoples of the Americas and their traditional languages in her book titled *Conquest: Sexual Violence and American Indian Genocide*:

Colonialists saw the cultural assimilation and missionization processes as part of the same project. From their point of view, Indians not only lacked the Scripture, they lacked the language that would allow them to comprehend God. Complained Jonathan Edwards, "The Indian languages are extremely barbarous and barren, and are very ill fitted for communicating things moral and divine, or even things speculative and abstract. In short, they are wholly unfit for a people processed of civilization, knowledge, and refinement." Missionaries also complained that indigenous languages were unable to communicate the concepts of "Lord, Saviour, salvation, sinner, justice, condemnation, faith, repentance, justification, adoption, sanctification, grace, glory, and heaven."⁶³

Statements such as these by non-Native language speakers are particularly strange, as those making such determinations would have no way of knowing what these Indigenous languages entailed or did not entail concept-wise, since they had largely not studied them, did not speak them, and likely did not have the trust of Native Peoples who would have felt safe enough to explain the spiritual nuances of their languages to them.

Likewise, in his article titled "The Survival and Sustainability of the Blackfoot Nation and Culture," a paper presented at the 16th Congress of IUAES, Kuming, China, James Craven also brings forth the following concept:

It is very clear from the internal documents of the U.S. and Canadian Governments, as well as from the internal documents, diaries and memoirs of the missionaries and "Indian Agents", that the core and defining values, institutions, practices, priorities, relationships and other dimensions of the culture of the Blackfoot, with many aspects in common with the cultures of other Indigenous nations, were not simply regarded and dismissed as "inferior" or backward; rather, they were first and foremost regarded as direct challenges (without any evangelical intentions by Indigenous peoples to do so) to the core values, practices, relations, theologies and institutions—cultures—of capitalism and those of the settlers ... so Indigenous cultures and systems, with definite communalist and non-capitalist practices and values, were regarded as existential threats and banned. Even many Indigenous prayers, with communalist values, were seen as a threat to cultures—and interests—built on capitalism.⁶⁴

⁶² "The Native American Languages Act (NALA) of 1990/1992 created a new space in federal language and education policy that overturned several centuries of systematic linguistic and cultural repression." (Warhol, 2012), 1.

⁶³ Andrea Smith, *Conquest: Sexual Violence and American Indian Genocide* (Boston: South End Press, 2005), 52.

⁶⁴ James Craven, "The Survival and Sustainability of the Blackfoot Nation and Culture," presentation at the 16th Congress of IUAES; Kuming, China, July 26-31, 2009, <https://www.linkedin.com/pulse/survival-sustainability>

With the combination of circumstances described above, it was virtually impossible for the Indigenous Peoples of the Americas to pass on or record traditional knowledge in any format that Western academia would consider to be “acceptable” for a literary review. Due to these circumstances, the lack of literature by Indigenous Peoples that incorporates their TK regarding the horse in the Americas from the 1500s through the 1900s is not surprising.

However, despite severe punishments and repercussions there was Indigenous resistance to these colonizing forces. Palys (1996) offers the following description of this:

But if history can be revised once, then it must be open to further reconsideration, and the last two decades have seen considerable transition in how aboriginals have been perceived in historical context. Part of this is due to aboriginals themselves, who must be acknowledged for the way they have continued asserting their past, even in the face of considerable suppression for more than a century.⁶⁵

Likewise, within their article titled “Revitalizing Indigenous Languages Through Indigenous Immersion Education,” Mary Hermes and Keiki Kawai‘ae‘a describe the “intentional political resistance to the dominant colonizing forces”⁶⁶ that occurred in the case of many of Americas Indigenous Peoples regarding the preservation of their languages, as follows:

Elders retained their languages in spite of physical and emotional punishment, traumatic encounters of children being torn away from home, and systematic abuse that was by design intended to extinguish the language and culture of its indigenous populations and assimilate indigenous identity to that of its colonizer.⁶⁷

The following quote regarding what occurred within the United States educational system is found within Britnae Purdy’s article titled “Three Horrendous Anti-Indigenous Laws”:

By 1909, there were 25 off-reservation boarding schools, 157 on-reservation boarding schools, and 307 day schools. 100 of these were run by the federal government, with others run by churches and missionaries ... [Children] were subjected to physical labor, abuse, and were not allowed to speak their native language, use their original names, or practice cultural activities.⁶⁸

Purdy also offers the following summary of Canada’s treatment of First Nations’ children within

-blackfoot-nation-culture-james-craven.

⁶⁵ Palys, “Prospects for Aboriginal Justice,” <http://www.sfu.ca/~palys/prospect.htm>.

⁶⁶ Mary Hermes and Keiki Kawai‘ae‘a, “Revitalizing Indigenous Languages Through Indigenous Immersion Education,” *Journal of Immersion and Content-Based Language Education* 2, no. 2 (2014), 303.

⁶⁷ Ibid, 303.

⁶⁸ Britnae Purdy, “Three Horrendous Anti-Indigenous Laws,” *First Peoples Worldwide*, August 29, 2013, <http://firstpeoples.org/wp/3-horrendous-anti-indigenous-laws/>.

the educational system:

Canada modeled their residential schools after those in the United States, with the first opening in 1880 and the last not closing until 1984, nearly four decades after the law was repealed in the United States ... It is estimated that at least 50,000 Native children died at these residential schools from starvation, disease, harsh conditions such as forced labor and cold, and abuse.⁶⁹

Angayuqaq Oscar Kawagley and Ray Barnhardt provide a succinct history of the relationship between the formal, Western educational system and Indigenous knowledge systems within Alaska in their work titled “Culture, Chaos, and Complexity: Catalysts for Change in Indigenous Education.” They define the period of the late 1700s (with the arrival of Russian fur traders) to the early 1900’s as a “dual system,” by which “two mutually independent systems [had] little if any contact.”⁷⁰ The period from the early 1900s to the 1950s is described as a “one-way transaction,”⁷¹ and Kawagley and Barnhardt state the following:

Schooling ... was strictly a one-way process at that time, mostly in distant boarding schools with the main purpose being to assimilate Native people into Western society, as practiced by the missionaries and school teachers (who were often one and the same.) Given the total disregard (and often derogatory attitude) toward the indigenous knowledge and belief systems in the Native communities, the relationship between the two systems was limited to a one-way flow of communication and interaction up through the 1950s ...⁷²

In light of these official government policies and the stereotypes held by the dominant Western culture and academia toward the TK held by the Indigenous Peoples of the Americas, the disturbingly large void that exists with regard to the contributions of Indigenous Peoples regarding their own history is to be expected. Indeed, the cultural eradication of Indigenous Peoples’ was the colonizer’s intended outcome, all along. Donald L. Fixico addresses this issue in his article titled “Ethics in Writing American Indian History.” He states:

Whether racially prejudiced or guilt-ridden, patronizing, paternalistic, or romantic, Indian history mainly has been perceived from a white perspective, based on the idea that “the conquerors write the history.” More than 30,000 manuscripts have been published about American Indians, and more than 90 percent of that literature has been written by non-

⁶⁹ Purdy, “Three Horrendous Anti-Indigenous Laws,” <http://firstpeoples.org/wp/3-horrendous-anti-indigenous-laws/>.

⁷⁰ Angayuqaq Oscar Kawagley and Ray Barnhardt, “Culture, chaos, and complexity: Catalysts for Change in Indigenous Education,” *Eric* (1998): 2, <http://files.eric.ed.gov/fulltext/ED425032.pdf>.

⁷¹ *Ibid.*, 2.

⁷² *Ibid.*, 2.

Indians.⁷³

Devon Abbott Mihesuah expands upon this topic by expressing the following point:

... why aren't more Indians consulted about their versions of their peoples' past? Despite the expertise of numerous Indians about their tribe's history and culture, many are not university educated and are not taken seriously by most members of the academic community ... but are not some written records fantasy? Are not some writings of some army officers, missionaries, explorers, and pioneers who encountered Indians exaggerated and biased? ... Using the Native voice exclusively may not yield a precise picture of past events, but neither will the sole use of skeletal remains, midden heaps, or non-Indians' diaries, government reports, and letters.⁷⁴

In addition to the dominant Western culture's disregard for Native perspectives and Indigenous TK, another challenge in conducting a valid literature review on this topic involves the preference that Indigenous cultures have for preserving and passing their traditions, history, and culture forward orally, combined with Western academia's belief that "facts" must be represented in a written format in order to be considered true. Julie Cruikshank describes what has occurred throughout the world in this regard in her work titled *Reading Voices Dän Dhá Ts'edeninth'e Oral and Written Interpretations of the Yukon's Past*:

Storytelling may be the oldest of the arts. We know that every culture on earth has passed essential ideas from one generation to the next by word of mouth. But in many parts of the world, the power of the written word has displaced the power of the spoken word.⁷⁵

This privileging of the written word over oral history by the dominant Western culture gives European-based observations, pre-dispositions, perspectives, and conclusions a clear advantage in determining historical fact. As a practical matter, only Europeans could write their perceptions during the early conquest periods. Today, this early recorded information (which supported a Eurocentric worldview) has become widely accepted as truth, despite the fact that many of the earliest explorers and conquistadors had limited formal education, limited geographical exposure to the Americas, and limited cultural exposure to its inhabitants.

⁷³ Donald L. Fixico, "Ethics in Writing American Indian History," in *Natives and Academics: Researching and Writing About American Indians*, edited by Devon Abbott Mihesuah (Lincoln: University of Nebraska Press, 1998), 86.

⁷⁴ Devon Abbott Mihesuah, ed., *Natives and Academics: Researching and Writing About American Indians* (Lincoln: University of Nebraska Press, 1998), 2-3.

⁷⁵ Julie Cruikshank, *Reading Voices Dän Dhá Ts'edeninth'e Oral and Written Interpretations of the Yukon's Past* (Vancouver: Douglas & MacIntyre, 1991), 11.

Furthermore, many of their observations were made and recorded as they were simply passing through an area or after only having been there for a matter of days. Zandra Kambyzellis explains what occurs during this forced transition brought on by colonialism in her essay, “Language: Spoken or Written?”:

When an imperialist country enters another and subjects the people to a new language (think of the written word as a language distinct from the spoken word), a change that can be considered purely ‘post-colonial’ occurs ... The old tradition of orality is questioned, and the newer, foreign convention of writing attempts to take its place.⁷⁶

The following description of the effect of colonialism upon an individual is offered by Don McCaskill in his article titled “Native People and the Justice System”:

Colonialism involves a relationship which leaves one side dependent on the other to define the world. At this individual level, colonialism involves a situation where one individual is forced to relate to another on terms unilaterally defined by the other.”⁷⁷

Indeed, some modern-day experts have conducted their own research and discovered that their findings are often not aligned with many of the early historical claims. As Cruikshank explains: “Throughout the world, archaeologists and historians are becoming aware that accounts of the past often pay too much attention to Europeans and too little to the viewpoints of people who were living on the other five continents – North America, South America, Asia, Africa and Australia – when Europeans first arrived.”⁷⁸

As Indigenous scholars rise through academia, their voices are being heard. In the “language of the conqueror” they bring forth explanations of their traditions that have the power to erase historical misconceptions. In particular, Indigenous researchers have focused on ensuring that oral tradition is validated. As Gregory Cajete explains in his book titled *Native Science: Natural Laws of Interdependence*:

This process can be compared to the process in which a book is written and then disseminated to the public in published form. Oral storytelling and the use of mythological symbols are used to communicate important information in the same way.⁷⁹

⁷⁶ Zandra Kambyzellis, “Language: Spoken or Written?” *Political Discourse – Theories of Colonialism and Postcolonialism*, accessed March 7, 2016, <http://www.postcolonialweb.org/poldiscourse/kz2.html>.

⁷⁷ Don McCaskill, “Native People and the Justice System,” In Ian A.L. Getty and Antoine S. Lussier (Eds.). *As Long as the Sun Shines and Water Flows: A Reader in Canadian Native Studies*. Vancouver: University of British Columbia Press, (1983), 289.

⁷⁸ Cruikshank, *Reading Voices*, 44.

⁷⁹ Gregory Cajete, *Native Science: Natural Laws of Interdependence* (Santa Fe, NM: Clear Light, 2000), 43.

Indeed, in his work titled *History of the Choctaw, Chickasaw and Natchez Indians*, Horatio Bardwell Cushman addresses the issue of oral traditions within these cultures. Born in Choctaw, Mississippi in the early 1800s to a missionary family that was sent by the American Board of Commissioners for Foreign Missions to work amongst the Native Peoples, he shares his firsthand observations as follows:

In their ancient councils and great national assemblies, the Choctaws always observed the utmost order and decorum, which, however, is universally characteristic of the Indians everywhere. In those grave and imposing deliberations of years ago convened at night, all sat on the ground in a circle around a blazing fire called "The Council Fire" ... The old men, beginning with the oldest patriarch, would then in regular succession state to the attentive audience all that had been told them by their fathers, and what they themselves had learned in the experience of an eventful life – the past history of their nation; their vicissitudes and changes; what difficulties they had encountered, and how overcome; their various successes in war and their defeats; the character and kind of enemies whom they had defeated and by whom they had been defeated, the mighty deeds of their renowned chiefs and famous warriors in days past ... and when we consider the extent to which all Indians cultivated that one faculty, memory, their connections in the history of the past is not so astonishing. I will here relate a little incident ... it is said of Red Jacket [the Indian Chief], that he never forgot anything he once learned. On a certain occasion, a dispute arose in a council with his tribe and the whites, concerning the stipulations made and agreed upon in a certain treaty. "You have forgotten," said the agent, "We have it written on paper." "The paper then tells a lie," replied Red Jacket. "I have it written down here," he added, placing his hand with great dignity on his brow. "This is the book the Great Spirit has given the Indian; it does not lie." A reference was immediately made to the treaty in question, when, to the astonishment of all present, the document confirmed every word the unlettered warrior and statesman had uttered.⁸⁰

Although literacy and written historical accounts are considered paramount today, many scholars have pointed out that widespread literacy is a fairly new phenomenon, not just in the Americas, but throughout the world. Indeed, J. Michael Francis corroborates this and describes the literacy range for the conquistadors at this time in history within his book titled *Iberia and the Americas: Culture, Politics, and History: A Multidisciplinary Encyclopedia, Volume 1*. Francis states:

In terms of education, again the range was broad, from men who were completely illiterate and uneducated to the occasional man of considerable learning. Although the availability of and attention given to conquistador narratives certainly give the impression

⁸⁰ Horatio Bardwell Cushman, *History of the Choctaw, Chickasaw, and Natchez Indians*, edited by Angie Debo (Norman: University of Oklahoma Press, 1999), 147-148.

that the conquerors were handy with a pen if not well read, the fully literate were among the minority in Spain as among conquest expeditions.⁸¹

Indeed, Francis goes on to offer more details regarding specific conquistadors and their levels of literacy at the time of conquest in South America:

Nor was the correlation between social status and literacy among conquistadors as close as might be expected; the colonial chronicler Juan Rodríguez Freyle, a Santafé de Bogotá native, claimed that some city council members of the New Granada settlements used branding irons to sign documents. Among the ten leaders of the famous 1532-1534 invasion of Peru, including the ... Pizarro brothers, four were literate, three were semi-literate (they could sign their names), and three were illiterate (including Francisco Pizarro).⁸²

As many of the conquistadors and/or early explorers who witnessed accounts firsthand in the Americas were not able to write their own experiences, their renditions were transcribed, interpreted, reinterpreted and/or edited, by others. An example of this can be seen with the first reported sighting of Native Peoples with horses in the Americas. Although historians generally claim that the Indians of the Southeast first acquired horses in the 1690s from the Spanish, there is written Spanish record of the Southeastern Indians having been seen with horses as early as 1521 in what is now Georgia and the Carolinas. This is particularly interesting as it would have been impossible for the first horses that the Spanish brought to the mainland (what is now Mexico) in 1519 to have escaped unnoticed, “make it” to the Georgia and Carolinas area, and have multiplied in two years’ time. The Spanish recorded the name of this province as “Duhare” and its inhabitants are thought to be the ancestors of the people known today as the Creek Indians. According to Richard Thornton in his work titled “490-Year-Old Spanish Documents Describe an Irish Province in South Carolina,” he states: “They raised many types of livestock including chickens, ducks, turkeys, geese and deer... Several Spanish sources, including de Ayllón, stated that the Duhare owned some horses.”⁸³

⁸¹ J. Michael Francis, *Iberia and the Americas: Culture, Politics, and History: A Multidisciplinary Encyclopedia*, vol. 1 (Santa Barbara, CA: ABC-CLIO, 2006), 353.

⁸² Ibid.

⁸³ Richard Thornton, “490-year-old Spanish Documents Describe an Irish Province in South Carolina,” *Frontiers of Anthropology* (blog), May 25, 2011, <http://frontiers-of-anthropology.blogspot.com/2014/03/490-year-old-spanish-documents-describe.html>.

The two Spaniards who reported that the Peoples of “Duhare” had horses were Francisco Gordillo, a Captain, and Pedro de Quejo, a Spanish slave trader, who were the first known Europeans recorded to have sailed along the Georgia, South Carolina, North Carolina, and Virginia coasts. In 1520, Peter Martyr d’Anghiera was appointed by Carlos V to be chronicler for the new Council of the Indies. Thornton describes this further in the following statement:

In 1522, [Martyr d’Anghiera] interviewed Francisco de Chicora [a captured Indian slave boy from the Americas], Gordillo, Quejo and Ayllón [the businessman to whom Gordillo and Quejo reported] for weeks then submitted a detailed report ... The passages concerning the land that would become Georgia and the Carolinas were always included, but generally ignored.⁸⁴

It is Peter Martyr d’Anghiera’s account that was considered “official,” not the one initially given by the men who actually visited “Duhare” and witnessed the Peoples with their horses. This chronicler, who was not brought to the area to observe for himself, concluded the following: “Could I act as arbitrator, I would say that according to the investigations I have made, these people were too barbarous and uncivilized to have horses.”⁸⁵

However, despite the dominant Western culture’s original view that oral history was somehow inferior to the written word, the culture of oral tradition was precise and storytellers were highly skilled at their crafts. As Lois J. Einhorn states within the work titled *The Native American Oral Tradition: Voices of the Spirit and Soul*:

Native Americans have passed the oral tradition on from generation to generation. The speeches, stories, prayers, and songs we have today have passed a rigorous test – the test of time. The words have been remembered, collected, integrated, told, retold, enhanced, refined, and tested by human experience over thousands of years.⁸⁶

According to these scholars, oral tradition, the art of storytelling, and Indigenous languages were able to convey depth and detail in a way that many modern-day languages and records are unable to do. In *Red Earth, White Lies*, Vine Deloria, Jr. explains:

Storytelling was a precise art because of the nature of Indian languages. Some tribal languages had as many as twenty words to describe rain, snow, wind, and other natural elements; languages had precise words to describe the various states of human emotion, the intensity of human physical efforts, and the serenity of the land itself... they quickly

⁸⁴ Ibid.

⁸⁵ Francis Augustus MacNutt, *De Orbe Novo: The Eight Decades of Peter Martyr D’Anghera*, vol. 2 (New York: The Knickerbocker Press, 1912), 259.

⁸⁶ Lois J. Einhorn, *The Native American Oral Tradition: Voices of the Spirit and Soul* (Westport, CT: Praeger, 1952), 4.

gave the listener a completely accurate rendering of a specific experience which Western languages could not possibly duplicate.⁸⁷

Along with the ability to be highly specific due to the depth and capacity of the languages used, a storyteller was expected to be exact in his or her rendering of historical knowledge. The storyteller's ability to memorize stories and information accurately was critical, as it was understood that in doing so the storyteller was honoring his or her ancestors.

This is something Keith H. Basso discovered in his time spent with the Apache people when he attempted to document place-names in their native language and had difficulty with pronunciation. He states, "... never had I suspected that using Apache place-names might be heard by those who use them as repeating verbatim – actually quoting – the speech of their early ancestors"⁸⁸

Although the focus of oral history was often different than the focus of the written word, the information garnered has great value in understanding a culture, the experience of a people, and their feelings about the issues they faced. In fact, Cruikshank reveals this by noting, "Oral traditions sometimes telescope events, or collapse the chronology... Again, oral traditions may not actually make it easier to *date* events, but they deepen our understanding of what these events must have meant in people's lives."⁸⁹ In spite of these strengths, the knowledge and wisdom contained in oral historical accounts has historically been absent from any literary review about the topic.

Indeed, there are numerous instances in academic literature where Native oral history regarding the horse is not treated as "historical fact." One such instance occurs in this statement regarding the "far less popular theory" as written on A. Tadlock's webpage titled "Section 2 – The Extinction of the Horse":

... one would expect Native Americans to have passed down some sort of stories of these wild horses. None seem to exist ... Hope Ryden's book, "America's Last Wild Horses," says of the Pryor Mountain herd in Montana, "No one knows for certain where these particular horses came from, or how long they have lived here. Indians from the adjacent Crow Reservation tell of wild horses in the region before the coming of the white man." Since there are no written accounts left by Native Americans, we may never know.⁹⁰

⁸⁷ Vine Deloria Jr., *Red Earth, White Lies* (Golden, CO: Fulcrum, 1997), 37.

⁸⁸ Keith H. Basso, *Wisdom Sits in Places: Landscape and Language Among the Western Apache* (Albuquerque: University of New Mexico Press, 1996), 10.

⁸⁹ Cruikshank, *Reading Voices*, 37.

⁹⁰ A. Tadlock, "America's Native Horses," *The Ultimate Horse Site*, accessed November 23, 2014, <http://www.ultimatehorsesite.com/info/wildhorseessay2.html>.

In this case, despite the fact that the author states that the Crow Indians reported that there had been wild horses in their area “before the coming of the white man,” Tadlock concludes that since there are “no written accounts left by Native Americans,” there is no evidence that the horse existed in the Americas before the arrival of the Spanish.

2.2 Deconstructing the Dominant Culture Theory

The claim that the Indigenous horse of the Americas died out during the last “Ice Age” and, therefore, was reintroduced to the Americas - and to the Native Peoples - by the colonizing cultures, still serves as the foundation for most historical, academic, and modern-day equine-related publications. Western academia supports this claim despite the following: statements from some Indigenous Peoples that they had horses prior to the arrival of the Spanish to the Americas in the late 1400s;⁹¹ numerous recorded sightings of vast herds of horses in both North and South America by early explorers; no scientific proof to support the claim that the Indigenous horse of the Americas became extinct during the last “Ice Age” (Wisconsin Glaciation); and scientific and genetic proof indicating the presence of *Equus* remains during the proposed extinction period within the Americas.⁹² An example of this dominant culture theory can be found in Neil Clarkson’s work titled, “Why Did Horses Die Out in North America?” He states the following:

The end of the Pleistocene epoch – the geological period roughly spanning 12,000 to 2.5 million years ago, coincided with a global cooling event and the extinction of many large mammals. Evidence suggests that North America was hardest hit by extinctions. This extinction saw the demise of the horse in North America”⁹³

Ian M. Lange also puts forth this claim and alludes to the confusion that it has created in his book titled *Ice Age Mammals of North America: A Guide to the Big, the Hairy, and the Bizarre*. He states:

Native horses became extinct in North America about 8,000 years ago, in Holocene time, with the youngest remains found in several localities in Alberta, Canada. Why horses

⁹¹ Claire Henderson, *The Aboriginal North American Horse* (Quebec City, Canada: Laval University, 1991).

⁹² Graham and Lundelius, *FAUNMAP*.

⁹³ Neil Clarkson, “Why Did Horses Die Out in North America?” Horsetalk.co.nz, November 29, 2012, <http://horsetalk.co.nz/2012/11/29/why-did-horses-die-out-in-north-america/#axzz3xjMT7cYi>.

died out is unclear, particularly since they have flourished in the wild since the Spaniards reintroduced them into North America five centuries ago.⁹⁴

However, according to the abstract of a study published by Dale A. Russell, *et al.*, titled “A Warm Thermal Enclave in the Late Pleistocene of the South-eastern United States,” the following is explained:

Physical and biological evidence supports the probable existence of an enclave of relatively warm climate located between the Southern Appalachian Mountains and the Atlantic Ocean in the United States during the Last Glacial Maximum. The region supported a mosaic of forest and prairie habitats inhabited by a ‘Floridian’ Ice Age biota.⁹⁵

The article goes on to clarify that, “As noted before, the Appalachians remained free of glacial ice throughout the Pleistocene time.”⁹⁶ If this research is correct, it would mean that from the *Paleo-Indian* period (ending roughly between 10,000 to 8,000 years ago) until first contact (the late 1400s for the Virgin Islands and other Caribbean islands, and the early 1500s for the continent), any horses living in this Southeastern region of what is now the United States would not have been adversely affected by the colder temperatures that affected the northern most parts of North America. Likewise, it would have been possible for horses that were living in those more northern areas to have migrated further south, rather than to have stayed in one place, freeze and/or starve to death, and become extinct.

Russell *et al.* provide the following map (Figure 2) of the Southeastern region of the United States. They utilize the thick, grey line (toward the top of the map) to indicate the border of the glacier during the Last Glacial Maximum. This border runs through current day Wisconsin, Illinois, Indiana, Ohio, New York, Pennsylvania and New Jersey. It did not extend further south than the Ohio River and Long Island, New York.

⁹⁴Ian M. Lange, *Ice Age Mammals of North America: A Guide to the Big, the Hairy, and the Bizarre* (Missoula, MT: Mountain Press, 2002), 131.

⁹⁵Dale A. Russell, *et al.*, “A Warm Thermal Enclave in the Late Pleistocene of the South-Eastern United States,” *Biological Reviews* 84 no. 2 (May 2009), 173, doi: 10.1111/j.1469-185X.2008.00069.x.

⁹⁶*Ibid.*, 191.

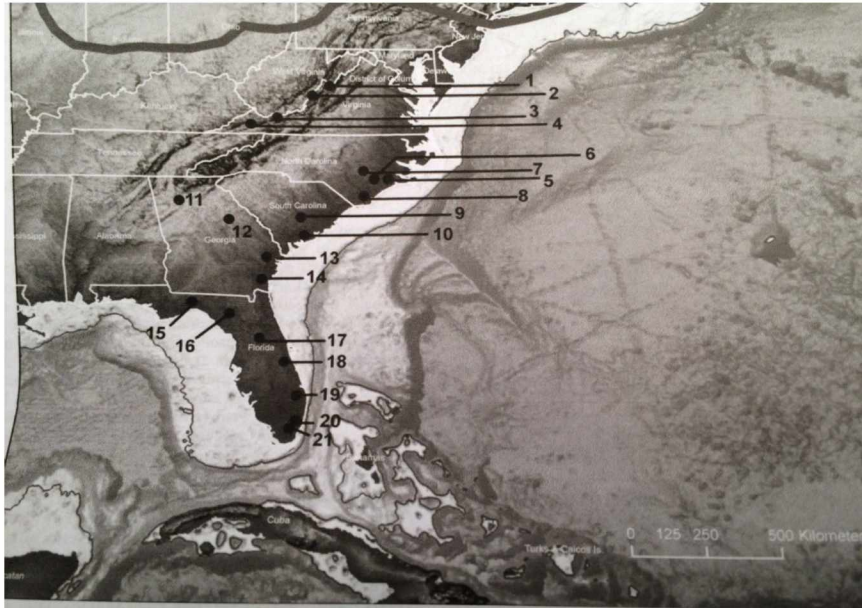


Figure 2 Glacier Mapping⁹⁷

If what Russell, *et al.* discovered is accurate, it is possible that the Indigenous Peoples of the Americas and the Indigenous horse of the Americas co-existed and had a continuous relationship before the arrival of the first load of horses that were brought to the Americas (to what are now the Caribbean Islands) by the Spanish in 1493, and the first horses to be brought by the Spanish to the mainland (to the area now known as Mexico) in 1519. The following information regarding the first load of horses that were brought to the Caribbean is offered by Gloria Farley in her book titled *In Plain Sight: Old World Records in Ancient America*. She states:

Denhardt reports the total number of horses brought on this expedition [Columbus' second voyage to the West Indies in 1493] was twenty-five, including ten mares and fifteen stallions ... Columbus wrote in 1494 to the King and Queen of Spain saying, 'Each time there is sent here any type of boat, there should be included some brood mares.'⁹⁸

Red Oak Tree organization website provides the following details and the conquistadors' assumptions regarding the Native Peoples' perceptions of the first load of horses brought by the Spanish to the mainland:

⁹⁷ Ibid., 175.

⁹⁸ Gloria Farley, *In Plain Sight: Old World Records in Ancient America* (Columbus, GA: ISAC Press, 1993): 343.

Cortez lands on the mainland and marches to Mexico City with 16 horses. Bernal Diaz del Castillo, who recorded the expedition wrote, ‘The natives had not seen horses up to this time and thought that the horse and rider were all one animal.’⁹⁹

As we can see, the numbers of horses that the Spanish were able to bring with them on their ships were fairly small compared to the vast herds of horses that were documented only decades later. Indeed, in his book titled *The Horses the Indians Rode*, Sigmund A. Lavine offers the following estimates of horse numbers in the 1700s:

It is estimated that a million mustangs ranged in Texas during the last years of the eighteenth century and the first decades of the nineteenth century. Father Morfi, an early missionary, reported to his superiors in 1777 that “bands of wild horses were so abundant that their trails made the country, utterly uninhabited by people, like as if it were the most populated in the world.”¹⁰⁰

If the evidence of modern research - such as the study by Russell *et al.* on the conditions during the Last Glacial Maximum or the evaluation of herd numbers - offer us information that deviates from early assumptions, then correcting such assumptions would serve to transform and liberate many related areas of study. This provides potential benefits to academia, as a whole.

2.3 A Review of Available Literature of the Subject Matter

Despite the release of research such as the above study, the theory that the Indigenous horse of the Americas became extinct during the last “Ice Age,” and that the Native Peoples had no prior knowledge of horses before the arrival of the Spanish, still dominates Western academia. This theory is so entrenched, that modern day researchers circle back to it, even when the “facts” do not “add up.” An example of this occurs in an account recorded by Don Juan de Oñate and cited by John S. Hockensmith in his book titled *Spanish Mustangs in the Great American West: Return of the Horse*. In this account King Philip II of Spain gave de Oñate, the son of a Spanish conquistador, orders in 1596 to lead an expedition as far north as New Mexico. By 1598, when de Oñate and those accompanying him reached New Mexico, he reported that vast herds of wild horses already occupied New Mexico. De Oñate noted, “The country is so immense and so full of wild mares.” Hockensmith continues on to say, “Oñate also reported that

⁹⁹ Red Oak Tree, “History 1492-1620, The Spanish Colonial Period,” *American Indian Horse*, last update October 19, 2015, <http://www.redoaktree.org/indianhorse/history1.htm>.

¹⁰⁰ Sigmund A. Lavine, *The Horses the Indians Rode* (New York: Dodd, Mead & Company, 1974), 56.

he lost 300 horses and mules in a 30-day period, partly due to the inability to contain animals while wild horses were roaming nearby.”¹⁰¹

In addition, the textbook titled *Discovering Our Past: A History of the United States (Early Years)* by Joyce Appleby, *et al* credits de Oñate with having “introduced cattle and horses to the Pueblo people.”¹⁰² However, this claim is not supported by de Oñate’s own account of having seen herds “of wild mares” upon his arrival to New Mexico.

It is important to note that before de Oñate’s expedition, there had been a handful of earlier expeditions crossing New Mexico territory by the Spanish. The most well known of these were led by Francisco Vasquez de Coronado and Hernando de Soto. However, in DeSoto’s case it is not historically accepted that his expedition lost live horses anywhere near New Mexico or Texas. In Coronado’s expedition, none of the horses were reported lost, and his records show only one mare was included in the expedition.¹⁰³ This mare returned with the group to Mexico.

Indeed, John Canfield Ewers charts historians’ debate regarding the idea that the Plains Indians, in particular, got their horses from these same expeditions in his book titled *The Horse in Blackfoot Indian Culture*. He states the following:

Haines’ major contributions were to point out that the Plains Indians acquired their first horses from a different source and at a considerably later date than Wissler had considered probable. Wissler gave credence to the theory that the first horses obtained by Plains Indians were animals lost or abandoned by the Spanish exploring expeditions led by De Soto and Coronado in 1541¹⁰⁴... However, another historian, Morris Bishop, who had made a critical study of early Spanish explorations, termed this theory, “a pretty legend.”¹⁰⁵ Haines virtually laid the old theory to rest. After a careful review of the evidence he concluded that “the chance of strays from the horse herds of either De Soto or Coronado having furnished the horses of the Plains Indians is so remote that it should be discarded.”^{106 107}

¹⁰¹ John S. Hockensmith, *Spanish Mustangs in the Great American West: Return of the Horse* (China: Fine Art Editions Gallery & Press, 2009), 38.

¹⁰² Joyce Appleby, *et al.*, *Discovering Our Past: A History of the United States Early Years* (Bothell, WA: McGraw-Hill Education, 2014), 46.

¹⁰³ Red Oak Tree, “History 1492-1620,” <http://www.redoaktree.org/indianhorse/history1.htm>.

¹⁰⁴ Clark Wissler, “The Influence of the Horse in the Development of Plains Culture,” *American Anthropology*, n.s., vol. 16, (1914), 9-10., **quoted in** John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980).

¹⁰⁵ Morris Bishop, *The Odyssey of Cabeza de Vaca* (New York, London: The Century Co., 1933), 31., **quoted in** John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980).

¹⁰⁶ Francis Haines, “Where Did the Plains Indians Get Their Horses?,” *American Anthropology*, n.s., vol 40, No. 1., (January – March 1938), 117., **quoted in** John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980).

There were two smaller expeditions to New Mexico some fourteen and fifteen years earlier than de Oñate's, ¹⁰⁸ but it is not recorded in either case that they lost any live horses. In fact, de Oñate's loss of horses is described as "the first band of horses, of record, in what is now the United States of America to run free." ¹⁰⁹

The following description of "escaped horses" is offered from Red Oak Tree's website:

After a brief severe winter at San Juan Pueblo, Oñate resettled his people at San Gabriel across the river from the original settlement. Very few documents relate to the livestock of the settlers however one incident occurred where a report was made, it was a military event. In 1599 during the month of October a patrol that was going to the pueblo of Zuni encountered a freak snowstorm that caused a halt to the march and forced the patrol to set up camp approximately twelve leagues west of the pueblo of Acoma. During the evening in blizzard like conditions, almost thirty head of horses managed to break out of the temporary corrals set up by the soldiers. The next day when it was found that the horses had escaped the soldiers mounted a search but to no avail. ¹¹⁰

De Oñate was being relied upon to provide accurate information to the Spanish Crown about his expedition. How is it that those reading his reports did not at least consider the idea that the horse may have already existed in the Americas previous to European contact? Where do they believe these "immense" herds came from? How is it that such sightings, combined with historical statements from Indigenous Peoples that they "always had the horse," would not be considered enough to cause modern-day researchers to at least question the predominant European theory regarding the origin of the horse in the Americas?

Within his book titled *The Indian and the Horse*, Frank Gilbert Roe addresses what he calls "The Stray Legend," or the theory that escaped or stray horses from early expeditions were the origin of the herds of "wild horses" found throughout North America. He states as follows:

The very precise accounts of leaders' horses slain on such occasions, as well as deaths of horses from other causes, compel us to conclude that such animals as our hypothetical strays, missing and unaccounted for, would not escape mention. With respect to the horses of common troops, their chances of escape and of producing offspring – sex conditions even permitting – were virtually nonexistent. In this connection, Frances Haines draws attention to some vital considerations that might easily be overlooked in

¹⁰⁷ John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980), 2.

¹⁰⁸ Richard Flint and Shirley Cushing Flint, "Gaspar Castaño de Sosa," <http://newmexicohistory.org/people/gaspar-castano-de-sosa>.

¹⁰⁹ Red Oak Tree, "History 1492-1620," <http://www.redoaktree.org/indianhorse/history1.htm>.

¹¹⁰ Ibid.

glib generalization about “strayed Spanish horses.” The hypothetical strays must wander away (or be lost in battle, hunting, or what not) in combinations of not less than two *together*, and necessarily be of both sexes on each of such occasions. Haines furthermore points out that while a pair, sire and dam could *mathematically* produce some three hundred or so progeny in the course of twenty years or thereabouts, in actual conditions in an unfamiliar environment this would not be possible.¹¹¹

Yet, despite facts such as these, the dominant Western academic theory persists.

Instances where Indigenous accounts are distorted and made to fit into the Western accepted theory with regard to the horse are prevalent. Hockensmith continues on to describe the Apache Indians and their relationship with the horse. To do this, he quotes an 1889 article written by Frederic Remington titled “Horses of the Plains” within his book. He quotes the following:

The Apaches were never ‘horse Indians,’ and always readily abandoned their stock to follow the mountains on foot. In early times, their stock-stealing raids into Mexico were simply foraging expeditions, as they ate horses, mules, cattle and sheep alike.¹¹²

Immediately after using this quote, Hockensmith goes on to state, “Yet Apache myths make it clear that they regarded horses as infused with supernatural powers. They believed these animals came as gifts from their gods, who guarded them long before bestowing them on man for his use.”¹¹³ Although such a belief system would have been inconsistent with a recent re-introduction of horses by Europeans, Hockensmith goes on to state the following in his book:

It is believed that an Apache group encountered Coronado’s expedition and horses in 1541. Rather than reacting with amazed horror, as did Zuñi and other Pueblo tribes who believed that horses would eat people, the Apache calmly surveyed Coronado’s horses, according to Spanish accounts. Their reaction perhaps indicates they had already gained some knowledge of the animals from other tribes or earlier contact with conquistadors.¹¹⁴

I feel it is important to offer an alternative and more culturally relevant interpretation of what may have constituted the look of “amazed horror” that the Zuñi Peoples presumably had upon viewing the Spanish mounted on their horses. It is possible that this reaction of “horror” that the Zuñi and some of the other Pueblo tribes were noted to have had upon seeing the Spanish with their horses, had to do more with the manner in which this sacred animal was being treated by the Spanish than because they had never before seen horses. Indeed, if the Natives

¹¹¹ Frank Gilbert Roe, *The Indian and the Horse* (Norman: University of Oklahoma Press, 1955), 37.

¹¹² Hockensmith, *Spanish Mustangs*, 50.

¹¹³ Ibid.

¹¹⁴ Ibid., 49-50.

were seeing horses for the first time ever, a look of fear or wonder would have been a more likely reaction.

However, according to Hockensmith's own extensive research, there were no earlier tribes allowed by Spanish law to have horses, and Coronado was the first conquistador to travel through Apache territory. Therefore, if Spanish records are correct, there were no earlier opportunities for the Apache to have had contact with conquistadors. Despite these facts, Hockensmith concludes by fitting this information into the European-accepted timeframe. He states, "After the Apaches acquired horses and gained Spanish weapons ..." ¹¹⁵ thereby continuing the Eurocentric myth that horses did not exist in the Americas before the Spanish. It appears that for Hockensmith, the inconsistencies he uncovered while performing his own research were not strong enough for him to feel comfortable challenging the accepted Western academic claim that the Spanish were responsible for introducing the horse to the Americas and its Native Peoples.

The Spanish conquistadors were not the only European explorers to have noticed and recorded early sightings of horses in the Americas. In 1579, the Queen of England sent Sir Francis Drake to "The New World." Drake also recorded having seen herds of horses in the Americas during his voyage off the coasts of what are now known as California and Oregon. An account given of Drake's landing in the geographic areas now known as Northern California and Southern Oregon includes the English explorer's description of the homes of the Native Peoples, as well as the animals that he encountered. "It related his wonder at seeing so many wild horses, because he had heard that the Spaniards had found no native horses in America, save those of the Arab breed which they had introduced." ¹¹⁶

In addition to accounts from explorers appointed by European kings and queens, there are accounts of native horses in South America in the area now known as Argentina. One such account even includes an explanation as to why the Spanish may have been motivated to hide the fact that the Indigenous horse of the Americas existed and had a relationship with Native Peoples.

According to an article entitled *Antigüedad del Caballo En El Plata* (The Antiquity of the Horse in the River Plate) by Anibal Cardoso as cited by Austin Whittall on his blog site article

¹¹⁵ Ibid., 53.

¹¹⁶ Henry S. Burrage, *Original Narratives of Early American History. Early English and French Voyages* (New York: Unknown Binding, 1906), 23.

titled “Extant Native American Horses Part II,” at the time that the explorer Cabeza de Vaca arrived in Argentina in 1542, horses were worth a great deal of money:

Cabeza de Vaca brought 27 horses with him. And they were an expensive item, worth 4,000 gold Reales. A fortune. In 1547 only 26 were still alive. But in 1553 Asunción had 130 horses! These must have been provided by the natives in exchange for Spanish goods. The horses were native ones, from the Pampas.¹¹⁷

Whittall goes on to explain that in 1580, when the Spaniards returned to the area to battle the locals, they “came across the horses, vast quantities of them. Native American horses.”¹¹⁸ According to Cardoso, however, the Spanish explorers in Argentina had reasons for denying to their countrymen back home in Europe that these horses were native to the Americas. Had they admitted this, by Spanish law those horses would have been deemed to be property of the Spanish King:

The Spaniards however, said that these horses were the offspring of the ones left behind by Mendoza.¹¹⁹ Why? To avoid paying taxes to the Spanish King. The Royal Tax Collectors said that the horses belonged to the King as they were part of his domains. But, after going to court, the judge found in 1596 that since they were descendants of the horses brought by Mendoza in 1536, they were not “of the land” but feral horses,¹²⁰ and therefore exempt of taxation.¹²¹

In light of possible motives – such as the one provided in Whittall’s research – it is important to delve more closely into the claims made in the literature that has been published in this area. In the case of the Southeast Native Peoples, the first potential opportunity for the Southeastern Indians to actually *acquire* horses from the Europeans – from the perspective of written historical record - would have occurred in 1541 when the ancestors of the Chickasaw people defeated the Spanish explorer, Hernando DeSoto. As Richard Green describes in an essay on his web page titled “DeSoto and the Chickasaw Horse”:

... the Chickasaw’s [*sic*] undoubtedly captured some of the spoils of victory, which eventually changed their lives and their descendant’s [*sic*] lives as well ... It isn’t known

¹¹⁷ Austin Whittall, “Extant Native American Horses, Part II,” *Patagonia Monsters: A Guide to Patagonia’s Mythical (and Real) Monsters and Legendary Beasts* (blog), May 9, 2013, <http://patagoniamonsters.blogspot.com/2013/05/extant-native-american-horses-part-ii.html>, 12-13.

¹¹⁸ Ibid.

¹¹⁹ This reference refers to Pedro de Mendoza, a Spanish explorer who founded a town in Argentina in 1536.

¹²⁰ Here the term “feral” refers to animals that were domesticated by the Spanish and subsequently became wild.

¹²¹ Whittall, “Extant Native American, Part II,” 13.

for sure that Chickasaws captured any of the 200 or so horses because these warriors didn't write reports and the Spanish were not around to witness it.¹²²

Likewise, the following account is provided by Holmes Willis Lemon titled "The Chickasaw Horse: Grandfather to the Quarterhorse":

On the Chickasaws [*sic*] first encounter with the horse, some accounts claim that the tribe captured some of De Soto's horses. Later, English traders introduced the horse to the tribe in trading pack trains and the horse is physically described as being 'small, about 13 hands' and having had 'a very short neck, and some even had to spread their front legs to graze as some wild horses and zebras do.'¹²³

According to Judith Dutson's book titled *Storey's Illustrated Guide to 96 Horse Breeds of North America*, there is written record of horses being sighted in Virginia and linked to the Chickasaw by the early to mid-1600s:

By the early to mid-1600s, there were horses of Spanish descent in the backwoods of Virginia, some wild and some owned by Indians, including the Chickasaw, who were known as having small horses of excellent quality. A traveler from England described the horses as being "not very tall, but hardy, strong, and fleet."¹²⁴

Today, some of the descendants of these ponies still populate Assateague Island, which is located off of the coast of Maryland and Virginia. Although these ponies were reported to have already been there upon the arrival of the colonial settlers, the assumption was made that they must have been Spanish horses, and their obvious phenotypical differences were explained away as having been a result of degeneration due to environmental conditions. According to the website assateagueisland.com, "Some people believe the horses arrived on Assateague's shores when a Spanish galleon ship (with a cargo of horses) sank offshore."¹²⁵ However, *La Galga*, the Spanish galleon at issue is purported to have wrecked in 1750, more than 100 years after these ponies were first reported having been seen in large numbers.¹²⁶

As the Pueblo Revolt, which occurred in what is now present-day New Mexico in 1680, is proclaimed by most historians to have been the year that horses were introduced to the Native

¹²² Richard Green, "DeSoto and the Chickasaw Horse," *The Spirit of Blackjack Mountain*, 2010, <http://www.thespiritofblackjackmountain.com/chicksaw-horse--r-green.html>.

¹²³ Holmes Willis Lemon, "The Chickasaw Horse: Grandfather to the Quarterhorse," *The Chickasaw Times*, 1977.

¹²⁴ Judith Dutson, *Storey's Illustrated Guide to 96 Horse Breeds of North America* (North Adams, MA: Storey, 2012), 64.

¹²⁵ "Assateague Wild Ponies," *Assateague Island National Seashore*, accessed January 16, 2016, <http://www.assateagueisland.com/wildlife/pony.htm>.

¹²⁶ "La Galga the Assateague Spanish Galleon," *The Hidden Galleon*, accessed February 27, 2017, <http://thehiddengalleon.com/the-legend/>.

American people in any significant number, it would not be possible for Spanish horses to have already “gone wild” and be living in large herds in Virginia by the early to mid-1600s.

Hockensmith describes the Tewa, Picuris, and Taos Pueblo revolt as follows:

[The Taos Pueblos] revolted against the colonists] and struck with fear, the settlers fled so hastily that they left most of the property behind, including more than 3,000 horses on the open plains around Santa Fé ... This was the end of the Spanish conquistador horse and the beginning of the Indian horse.¹²⁷

Indeed, as Chapter 7 of Philip Alexander Bruce’s book titled *Economic History of Virginia in the Seventeenth Century* states, by 1685 there were so many wild horses reported in the Virginia area that colonists began to hunt them:

So numerous had the wild horses grown to be at the close of the century that one of the principal sports of the young men of the Colony was to hunt them, not infrequently with the assistance of dogs. Saddle horses were trained especially for the purpose of threading the heavy timber of the forests at a high rate of speed. In consequence of the extraordinary fleetness of these wild animals, it was often impossible to catch them... Owing to the large number of foals born in the woods and remaining unmarked, the hunting of wild animals was not unprofitable, as to the captors belonged those upon which no brand had been placed.¹²⁸

However, whether the horse was reintroduced to the Southeastern Native Peoples by the Europeans as the dominant Western view claims, or whether these Native Peoples continuously lived with the creature over thousands of years before first-contact, it is clear from written records that this four-legged animal was an integral part of their society and culture. For example, the Choctaw have a traditional story about their people’s acquisition of the horse, which today is often referred to as “The Tale of the Wind Horse.” This story begins at the time when “day and night were still deciding who came first.”¹²⁹ It does not record that the horse was obtained from the Spanish, but rather that a wild and free horse made the decision to love and connect with a young boy. As a result, “... with Wind Horse’s prayer, the Horse was given to the Indian People as friends.”¹³⁰

¹²⁷ Hockensmith, *Spanish Mustangs*, 45.

¹²⁸ Philip Alexander Bruce, *Economic History of Virginia in the Seventeenth Century* (New York: MacMillan and Co., 1896), chapter 7.

¹²⁹ Tipi Pinti, “The Tale of the Wind Horse,” *Mike Boucher’s Web Page* (blog), 2017, <http://mike-boucher.com/wordpress/?pageid=236>.

¹³⁰ Ibid.

According to Jerry Self's (2013) web article titled *Choctaw and Cherokee Horses*, the Southeastern Natives traded horses amongst each other regularly:

The Five Tribes (Cherokee, Choctaw, Chickasaw, Creek and Seminole) were breeding their own line of horses early on. These tribes traded horses with each other and bred to other tribes' horses, making the breeds very similar.¹³¹

As James Taylor Carson explains in his article titled, "Horses and the Economy and Culture of the Choctaw Indians, 1690-1840," the horse was significant to the Southeastern Indians in many ways:

[Scholars] have largely overlooked the importance of horses in the economic and cultural life of the Southeastern Indians... as horses were important in activities ranging from ball games to funerary rituals, and they were essential in the development of the deerskin trade, the Choctaw market economy, and the cattle economy that flourished in Indian Territory.¹³²

Not only did the Choctaw have their own word for the horse "*isuba*," which has been translated into English as "deer-resembler" and is clearly not derivative from the Spanish word *caballo*,¹³³ they also used the word for horse in the naming of geographical places:

Traveling from Mobile into the Choctaw Nation in the early 1730s, Régis du Roullet reported two such toponyms. The first, *conchak ou soubaille* (canebrake where a horse drowned) ... The second, *Bouk ite tchuie soubu* (the bayou where there is a tree that marks a horsepath) indicated the regular passage of horses along the route from the Choctaw Nation to Mobile and bore testimony to the substantial horse traffic between the two.¹³⁴

Geographical place names in Native American cultures were not given or changed easily, and they traditionally referenced a time long before written records when the People first arrived and settled in the area. Therefore, the assumption that these Choctaw place-names were given as late as the time when colonists were living in the area is likely faulty. In his book titled *Wisdom Sits in Places: Landscape and Language Among the Western Apache*, Keith Basso shares what

¹³¹ Jerry Self, "Choctaw and Cherokee Horses," *Mid-South Horse Review*, March 5, 2013, <http://www.midsouthhorsereview.com/articles.php?id=5109>.

¹³² James Taylor Carson, "Horses and the Economy and Culture of the Choctaw Indians, 1690 – 1840," *Ethnohistory* 42, no. 3 (Summer 1995): 495, <https://docs.google.com/viewerng/viewer?url=http://www.academicroom.com/sites/default/files/article/190/James+Taylor+Carson,+Horses+and+the+Economy+and+Culture.pdf>.

¹³³ Ibid., 498.

¹³⁴ Ibid.

he learned while researching place-names in Western Apache territory. He explains that such names are often not changed over time, even when the physical characteristics of such a geographical place have been altered so much that they no longer obviously describe the place. He says of a place called “Snakes’ Water,” that, “there are more places like it ... that have undergone physical changes and no longer conform to the way their names describe them.”¹³⁵ Yet, the names will remain unchanged by the local native community, as they serve as important historical, cultural, and spiritual reference points.

In the book *Life Among the Choctaw Indians and Sketches of the South-West*, Henry Clark Benson describes the relationship between the Native men, women, and children of the Southeast and their ponies:

They were all equestrians, men, women, and children; each had his pony and saddle, and to ride on horseback was the first lesson ever learned. They rode in a gallop, and usually at the utmost speed of which the pony was capable. Young girls would leap from the ground into the saddle with the greatest facility, and dash off at full speed of the horse in the most reckless manner; but we never knew a man, woman, or child to be thrown from the saddle or to receive any injury in their equestrian performances. Their horses were all of the mustang or native stock, small, well-formed, and hardy creatures.¹³⁶

The Southeastern Indians’ relationship with their horses was so intimate that the people trusted their infants and young children with these gentle ponies. The Choctaw pony was described by Cushman as a “chubby little pony” whose “unwearied patience, and his seemingly untiring endurance of hardships and fatigue, were truly astonishing - surprising, according to his inches ...”¹³⁷

According to Cushman, these ponies were used to help mothers to care-take the toddlers in the tribe:

When the little chap had grown to such proportions as to be no longer easily thus transported (on his mother’s back), he was fastened to the saddle upon the back of a docile pony, which followed the company at pleasure; ... When [the child] arrived at the age of four or five years, he was considered as having passed through his fourth and last chrysalis stage, and was then untied from the saddle and bid ride for himself.¹³⁸

¹³⁵ Basso, *Wisdom Sits in Places*, 15.

¹³⁶ Henry Clark Benson, *Life Among the Choctaw Indians and Sketches of the South-West* (Cincinnati: L. Swormstedt & A. Poe, 1860), 55.

¹³⁷ Cushman, *History of the Choctaw*, 178.

¹³⁸ *Ibid.*, 176.

It is important to note that these practices were not ones that the Native Peoples would have witnessed from the Spanish or any other European culture that would have been familiar to them at that time in history. The Native Peoples' horse husbandry practices were uniquely their own.

The horse also played a prominent role in the ballgame, one of the Choctaw's most important ritualistic games. This game, which often involved hundreds of participants, was played up until the early 1900s. The following description of the Choctaw ballgame, as detailed on the Choctaw Nation's website, was based upon the artist George Catlin's observations in the 1830s:

Players with no experience would dress themselves in ball costume, and *apokshiana* (breech cloth) plus the tail of some animal, perhaps a horse or a raccoon, attached behind in the belt. Each novice, endeavoring to represent some animal, a white horse swift of foot, or a fighting "coon" did his best to make himself noticed by the leaders of his team in hopes that he would be chosen to play the next day.¹³⁹

As described by ChoctawNation.com, the following connection was made at the time:

The ballgame which Catlin beheld involved some six or seven hundred players, with 'five or six times' that number of spectators and aroused in his mind comparisons with the Greek Olympic games or contests of the Roman Forum.¹⁴⁰

Carson also noted the importance of the symbolism of the horse to these ballplayers as follows:

Visiting the Choctaws in 1820, Adam Hodgson, an Englishman who traveled through Mississippi while visiting the Choctaw missionary stations, noted the males wore long white horsetails, rather than wildcat tails and white bird feathers, as part of their game dress.¹⁴¹

The significance of the horse in the Southeastern Indian culture can also be noted by observing its role in traditional Choctaw funeral rituals. He refers to a time period when the horse was killed in order that its spirit accompany its owner in the afterlife. Carson offers an interpretation of this ritual by Louis Leclerc de Milford in the following passage:

Choctaws placed the bodies of the dead on open-air scaffolds until they had decayed sufficiently for bonepickers to remove the flesh. The bones were then bundled for

¹³⁹ Choctaw Nation of Oklahoma. "Choctaw Games." *Choctaw Nation: Faith, Family, Culture*. 2010. <https://www.choctawnation.com/history-culture/choctaw-traditions/choctaw-games>.

¹⁴⁰ Ibid.

¹⁴¹ Carson, "Horses and the Economy," 503.

presentation to the deceased's clan and internment in the village bonehouse. After the bonepickers completed their task, they slaughtered the deceased's horse(s) and roasted the carcass(es) for a feast.¹⁴²

Forty years later, in the late 1700s, it was noted by an Englishman named Adam Hodgson that the Choctaw had “begun to bury their dead with their guns, tomahawks, and favorite horses, so that they would have something to ride to the afterlife”¹⁴³ and that by the 1820s “Choctaws instead preferred to believe that the horse's spirit accompanied the deceased into the afterworld while its body remained to render useful live service on earth to the deceased's kinfolk or community.”¹⁴⁴

2.4 Importance of This General Issue to Academia

Deconstructing – and finally truthfully reconstructing – the history of the horse in the Americas may prove to be temporarily uncomfortable for many Western scientists, academics, and historians, as a large amount of academic research across disciplines has utilized the current accepted theory as its base. However, the world can only benefit from unearthing the truth. If this can be done, archeologists would no longer need to fear “site contamination” upon the discovery of horse bones while excavating, as Dr. John Clark, Director of the New World Archeological Foundation, describes in the next chapter of this research project. Nor would paleontologists have to continue to attempt to explain away their results by concluding that “rodent tunneling” might be responsible for intermixing horse bones and remains in soil samples and excavation levels that have been dated within the supposed extinction period. An example of this occurred at some excavations in the Yucatan peninsula, which were publicized in the 1950s. The following description of this is offered on the *FairMormon* website:

Two Mexican archeologists carried out a project that included a complete survey of the complex system of subterranean cavities (made by underground water that had dissolved the subsurface limestone). They also did stratigraphic excavation in areas in the *Loltun* complex not previously visited. The pits they excavated revealed a sequence of 16 layers, which they numbered from the surface downward. Bones of extinct animals (including mammoth) appear in the lowest layers. Pottery and other cultural materials were found in levels VII and above. But in some of those artifact-bearing strata there were horse bones, even in level II. A radiocarbon date for the beginning of VII turned out to be around 1800 BC. The pottery fragments above that would place some portions in the range of at least

¹⁴² Ibid., 498.

¹⁴³ Ibid., 504.

¹⁴⁴ Ibid.

900-400 BC and possibly later. The report on this work concludes with the observation that “something went on here that is still difficult to explain. Some archeologists have suggested that the horse bones were stirred upward from lower to higher levels by the action of tunneling rodents, but they admit that this explanation is not easy to accept. The statement has also been made that paleontologists will not be pleased at the idea that horses survived to such a late date as to be involved with civilized or near-civilized people whose remains are seen in the ceramic-using levels. Surprisingly, the Mexican researchers show no awareness of the horse teeth discovered in 1957 by Carnegie Institution scientists Pollock and Ray.”¹⁴⁵

Another example showing how such presumptions have affected the field of archeology, can be seen in Gloria Farley’s book titled *In Plain Sight: Old World Records in Ancient America*. In this work Farley describes numerous examples of artifact evidence of pre-Columbian horses in America, each of which were discovered in the southeastern region of the United States. She details her interaction with Dr. Joseph B. Mahan of Columbus, Georgia at a symposium where she was showing slides of what she states are pre-Columbian horse petroglyphs found in Arkansas and Oklahoma.¹⁴⁶ Dr. Mahan is a former member of the National Historical Sites Commission who “spent thirty years researching the origin of the Yuchi Indians, formerly of Georgia and Alabama, now removed to Sapulpa, Oklahoma.”¹⁴⁷ Farley states:

Mahan said, “We kept finding small sculpted horses in nearby Alabama in a site we thought was older than the sixteenth century but attached no great importance to them because of the 1540 concept [i.e. the belief that no horses could have been there before 1540].”¹⁴⁸

Farley also notes that Dr. Mahan showed her a clay statuette (Figure 3) of a pre-Columbian “3-inch horse effigy that was found on Roods Creek, about 2 miles from the Chattahoochee River”¹⁴⁹ (which was housed at the time in the Columbus Museum of Arts and Sciences in Georgia), and that “Manford Metcalf of Columbus, Georgia, put into my hand a small stone effigy which resembled a horse head,” which was found in a 1974 dig “near the Yuchi Creek near Fort Benning, Georgia.”¹⁵⁰

¹⁴⁵ “Horses in the Book of Mormon,” *FairMormon Answers*, last modified November 23, 2016, http://en.fairmormon.org/Book_of_Mormon/Anachronisms/Animals/Horses.

¹⁴⁶ Farley, *In Plain Sight*, 342.

¹⁴⁷ *Ibid.*, 449.

¹⁴⁸ *Ibid.*

¹⁴⁹ *Ibid.*, 342.

¹⁵⁰ *Ibid.*

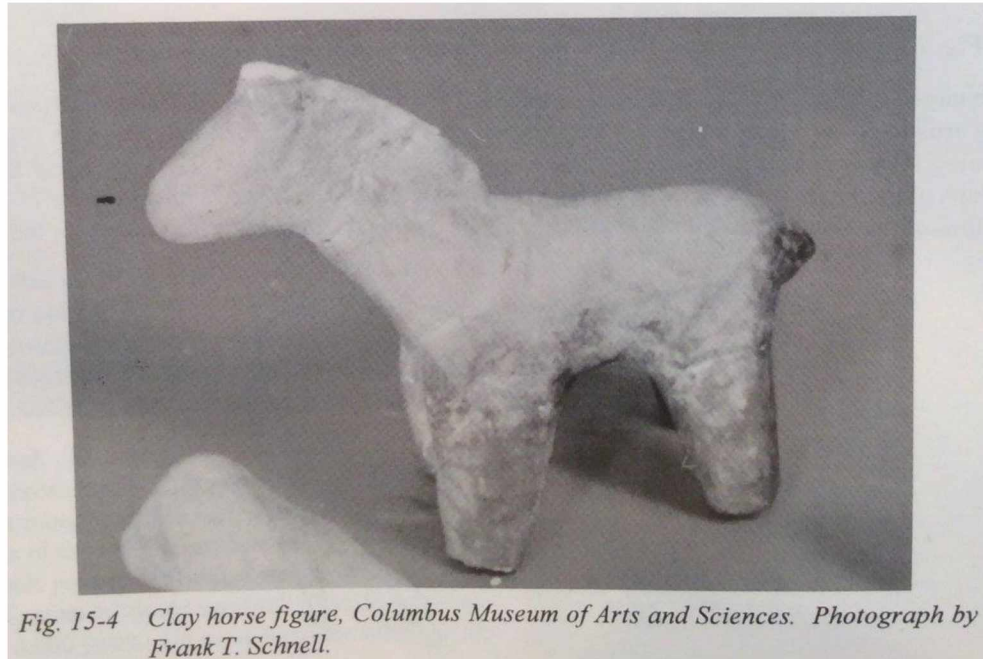


Figure 3 Photograph of Pre-Columbian (before AD 1500) horse statuette.¹⁵¹

Had the archeologists in this situation simply been open to allowing the evidence to shape their research, rather than closing their minds to their findings in order to conform to what they were taught in their Western classrooms, their discoveries could have opened an entirely new realm of knowledge with regard to academia's understanding of the history of the Americas and its Peoples. However, in order to do this, academia must grant researchers permission to trust the results of their investigations – even when they do not conform to a pre-established paradigm that makes the dominant Western culture comfortable.

2.5 Summary

This chapter highlights some of the ways in which performing a standard literature review on this subject is compromised, demonstrates why a deconstruction of the current theory regarding this topic can help to replace biased assumptions of the past with more accurate and comprehensive knowledge, offers a review of certain available and relevant research and literature on the subject, and addresses the significance of this general issue to academia.

Yes, it has been said that the “conquerors write the history.”¹⁵² However, in order for a “conqueror” to exist, the battle must be over. The presence of Indigenous Peoples throughout the

¹⁵¹ Farley, *In Plain Sight*, 342.

Americas (and indeed, throughout the world), who are rising in support of their heritage and to attest to the validity of their Peoples' traditional knowledge, is proof that the battle has yet to be won. If Western academia and the TK of Indigenous Peoples can merge to offer a more complete and accurate story of "what was" for the Native Peoples, flora, and fauna of the Americas at the time of first contact, rather than rely on the promotion of a version of history that was created out of fear, prejudice, and misconception, then the end of the battle in this portion of the world can be glorious for "both sides." It is time that we allow the evidence to guide us as researchers, and not rely upon Western history's preconceived notions of what is acceptable, possible, or comfortable. Such continued reliance upon illusion will do nothing more than support the Eurocentric myth, harm Native Peoples by denying them critical aspects of their culture, and cause more confusion for academic scholars.

¹⁵² Donald L. Fixico, "Ethics in Writing American Indian History," in *Natives and Academics: Researching and Writing About American Indians*, edited by Devon Abbott Mihesuah (Lincoln: University of Nebraska Press, 1998), 86.

Chapter 3

Methodologies and Methods

This chapter establishes the methodology and the methods utilized in researching the history of the horse in the Americas and its relationship with the Indigenous Peoples of these same lands. To date, this “history” has been written to reflect a Eurocentric and colonial paradigm, leaving out the traditional knowledge (TK) of the Indigenous Peoples of the Americas and any information that is contrary to the accepted Western academic and cultural view. Not only is this version incomplete and misleading, it also serves to distort truth and deny the accomplishments of Native Peoples.

Melanie Birks and Jane Mills claim, “It is important to understand the difference between a methodology and a set of methods. Stemming from a congruent philosophy, a methodology is a set of principles and ideas that inform the design of a research study. Methods, on the other hand, are practical procedures used to generate and analyze data.”¹⁵³

A colonial paradigm has permeated academia for centuries. This phenomenon is addressed in Linda Tuhiwai Smith’s work titled *Decolonizing Methodologies: Research and Indigenous Peoples*:

Views about the Other had already existed for centuries in Europe, but during the Enlightenment these views became more formalized through science, philosophy and imperialism, into explicit systems of classification and ‘regimes of truth.’ ... History was the story of people who were regarded as *fully human*. Others who were not regarded as human (that is, capable of self-actualization) were prehistoric.¹⁵⁴

Therefore, in order to conduct this research, I utilize an indigenous research paradigm that includes “Critical Indigenous Research Methodologies (CIRM).”¹⁵⁵ CIRM will be applied to this research in many ways, including the following: this investigation is being conducted with the support of Indigenous and/or non-Indigenous Elders from many Nations and communities within the United States and Canada; I plan to work closely with the community members who

¹⁵³ Melanie Birks and Jane Mills. *Grounded Theory: A Practical Guide*, 2nd ed. (London: SAGE, 2015), 4.

¹⁵⁴ Linda Tuhiwai Smith, *Decolonizing Methodologies: Research and Indigenous Peoples* (London: Zed Books Ltd., 2012), 32.

¹⁵⁵ Bryan McKinley Jones Brayboy, Heather R. Gough, Beth Leonard, Roy F. Roehl II, and Jessica A. Solyom, “Reclaiming Scholarship: Critical Indigenous Research Methodologies,” In *Qualitative Research: An Introduction to Methods and Designs*, edited by Stephen D. Lapan, Marylynn T. Quartaroli, and Frances J. Reimer, 423-450 (San Francisco: Jossey Bass, 2012).

participate in this research; respect cultural protocols regarding the exchange and presentation of TK; and the results of this project will be gifted back to such communities in a manner that participants decide would be most beneficial.

Grounded Theory (GT), or the “discovery of theory from data,”¹⁵⁶ will be applied in tandem with CIRM in an attempt to explain the behavior and reactions of both non-Indigenous and Indigenous Peoples and/or societies surrounding this topic. According to the Grounded Theory Institute:

Although many call Grounded Theory a qualitative method, it is not. It is a general method. It is the systematic generation of theory from systematic research. It is a set of rigorous research procedures leading to the emergence of conceptual categories.¹⁵⁷

If it is indeed a myth that the Indigenous horse of the Americas did not survive the last “Ice Age,” and the Native Peoples actually did have a horse culture that preceded the arrival of the Spanish in the late 1400s, how is it that such a belief system has continued for hundreds of years and been accepted and promoted across academic disciplines? How is it that newly arriving explorers - such as Sir Francis Drake - and settlers could see large herds of wild horses, witness Indigenous Peoples with horses, and observe that such peoples had established unique horse cultures, yet still conclude that these Peoples’ knowledge, skills, and animals must be derivative of those provided by the colonizing cultures?

Even though “qualitative research studies [within Western academia] originate from early world explorers who documented their experiences of encountering the tribes of foreign lands while collecting cultural artifacts, all in the name of colonization,”¹⁵⁸ such methods had been utilized within indigenous cultures to gain understanding for thousands of years. Therefore, the following qualitative methods will be utilized in this study: participant observation, interviews with Native Elders, medicine people, scientists, geneticists, reproductive biologists, archeologists, and horse experts, as well as analysis of written historical, academic, and scientific records.

In conducting this research from a perspective that is aligned with indigenous ontology, epistemology, axiology, and methodology, as well as utilizing Grounded Theory (GT) to help to

¹⁵⁶ Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (New Brunswick, NJ: Aldine Transaction, 2012), 1.

¹⁵⁷ “What Is Grounded Theory?” <http://www.groundedtheory.com/what-is-gt.aspx>.

¹⁵⁸ Birks and Mills, *Grounded Theory*, 6.

determine how Western academia and society, in general, came to be in this current place regarding this topic, it is expected that the dominant Western cultural claim regarding the history of the horse in the Americas and this animal's perceived relationship with the Indigenous Peoples of these same lands will be shown to be inaccurate, incomplete, and filled with cultural bias. In keeping with GT, the following methods will be applied in order to generate a well-grounded theory: "initial coding and categorization of data, concurrent data generation, collection and analysis, writing memos, theoretical sampling, constant comparative analysis, theoretical sensitivity, intermediate coding, identification of a core category, and advanced coding and theoretical integration." ¹⁵⁹

As stated in Chapter 1, Western science recently completed the genome sequencing for one Middle Pleistocene and one Late Pleistocene era horse from the Yukon area. However, it has yet to complete the genome sequencing for any Ancient South American horses or for Ancient North American horses from other regions or from the Holocene era (beginning roughly 12,000 years ago). Completing such genetic work is critical. As scientists were only able to sequence the human genome as recently as 2003, and the equine genome (of a domestic Thoroughbred mare) was first mapped in 2007, much of the territory surrounding the field of equine genetics is still relatively uncharted. Ernest Bailey and Samantha A. Brooks offer an example that humorously illustrates Western science's learning curve in this area of their book titled *Horse Genetics*:

... one of the great surprises from sequencing the genome was the discovery that most of our DNA does not code for genes. For a brief time, people simply jokingly referred to such DNA as junk! We just did not know what function it might serve. Since then, we have learned that almost all DNA is transcribed; that is, it is read and used to make corresponding RNA molecules. ¹⁶⁰

Therefore, although I originally planned to genetically compare many of the horses at Sacred Way Sanctuary to those horses that roamed the Americas before the last extinction period (roughly 11,000 to 13,000 years ago) by running their genetic samples against such genome sequencing results, I will be unable to do so at this time since this work has yet to be completed. In order to address this issue, I have started the process of locating an equine genetics team that would be interested in performing such work, as well as securing the funding to support such work.

¹⁵⁹ Ibid., 10.

¹⁶⁰ Ernest Bailey and Samantha A. Brooks, *Horse Genetics*, 2nd ed. (Oxfordshire, UK: CABI, 2013), 33.

3.1 Need for an Indigenous Research Paradigm

Despite much of Western academia's conviction that its research methodologies and methods are without bias, the prejudice that Indigenous Peoples across the globe have endured at the hands of Western academia as a result of the dominant Eurocentric and colonial paradigms that are in place prove otherwise.^{161 162} One such example involves the Hawaiian and other Polynesian cultures. Despite "cultural evidence documenting a purposeful and orderly migration from the central Pacific islands to Hawai'i in a stepwise fashion,"¹⁶³ the dominant Western academic culture chose to support and promote a theory brought forward in the 1950s, which claims that the "migration throughout much of Polynesia, including Hawai'i, was accidental."¹⁶⁴ Shawn Malia Kana'iaupuni further explains this in the following statement:

His theory of accidental migration was much more palatable than intentional migration at a time when the Western world had an understanding of measuring latitude, but no reliable measure for determining longitude... It was unfathomable that Native Hawaiian navigators may have solved this scientific problem before the invention of the chronometer.¹⁶⁵

It was only after a Hawaiian canoe successfully retraced the route across the Pacific using solely ancient techniques, that Western science began to recognize that "Native Hawaiians [had] mastered the science of navigating across the world's largest expanse of ocean long before the Western world was able to overcome the longitude problem."¹⁶⁶ The following quote in Laura Parker's article titled "A Hawaiian Canoe Crosses the Oceans, Guided by Sun and Stars" provides background regarding the construction of this canoe:

The canoe, known as Hokule'a ("star of gladness"), was built in 1975 by the Polynesian Voyaging Society to promote Hawaiian indigenous culture, in particular the voyaging and navigational traditions that brought Polynesian settlers to the Hawaiian archipelago. Its inaugural voyage in 1976, from Hawaii to Tahiti, was a 2,500-nautical-mile journey.¹⁶⁷

¹⁶¹ Wilson, *Research is Ceremony*.

¹⁶² Smith, *Decolonizing Methodologies*.

¹⁶³ Shawn Malia Kana'iaupuni, "Ka'akālai Kū Kanaka: A Call for Strengths-Based Approaches from a Native Hawaiian Perspective," *Educational Researcher* 33, no. 9 (2004): 32. <http://journals.sagepub.com/doi/pdf/10.3102/0013189X033009026>.

¹⁶⁴ Ibid.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid.

¹⁶⁷ Laura Parker, "A Hawaiian Canoe Crosses the Oceans, Guided by Sun and Stars," *The New York Times*, November 2, 2015, http://www.nytimes.com/2015/11/03/science/a-hawaiian-canoe-crosses-the-oceans-guided-by-sun-and-stars.html?_r=0.

This Eurocentric paradigm was present in every part of the world where imperialism existed and colonization occurred. Linda Smith offers the following summary:

There is one particular figure whose name looms large, and whose specter lingers, in indigenous discussions of encounters with the West: Christopher Columbus. It is not simply that Columbus is identified as the one who started it all, but rather that he has come to represent a huge legacy of suffering and destruction ... But there are other significant figures who symbolize and frame indigenous experiences in other places. In the imperial literature these are the ‘heroes,’ the discoverers and adventurers, the ‘fathers’ of colonialism ... In the Pacific, for example it is the British explorer James Cook, whose expeditions had a very clear scientific purpose and whose first encounters with indigenous peoples were fastidiously recorded ... for many communities there were waves of different sorts of Europeans: Dutch, Portuguese, British, French, whoever had political ascendancy over a region.¹⁶⁸

In the case of the Americas, those who were responsible for initially colonizing “The New World,” were men who had survived *La Reconquista*, a brutal conflict between Muslims and Christians that had lasted for almost eight hundred years in the Iberian Peninsula — today’s Portugal and Spain. David Walbert’s explains this further on the LEARN NC website:

The [*conquistadores*] in short, were the perfect men to cross a dangerous ocean and conquer a ‘New World’ of dense uncharted forests, tropical diseases, and hostile heathens. They were devoted to God, king, and queen, they were tough, and they were eager for wealth and glory. And after 1492, with the *Reconquista* complete, they were in the market for a new crusade. Conveniently enough, Christopher Columbus gave them one.¹⁶⁹

Walbert describes the mindset of the conquistador as follows:

The men who fought in the *Reconquista* were convinced of their superiority to their enemies who had rejected Christianity, and they developed rules of war based on that superiority — including the right to enslave the people they conquered.¹⁷⁰

It is important to note that the concept of slavery was not new for those who came to conquer the Americas, as they had already been affected by it for centuries. William D. Phillips, Jr. offers the following summary in *Slavery in Medieval and Early Modern Iberia*:

Slavery was present in the Iberian Peninsula from the beginning of recorded history. It was prominent in Roman times and in the early Middle Ages under the Visigoths. The Muslims

¹⁶⁸ Smith, *Decolonizing Methodologies*, 21-22.

¹⁶⁹ David Walbert, “Spain and America: From Reconquest to Conquest,” *LEARN NC: North Carolina Digital History*, 2007, <http://www.learnnc.org/lp/editions/nchist-twoworlds/1677>.

¹⁷⁰ Ibid.

maintained a slave system in Iberia as long as they held territory there. The medieval Christian kingdoms of the peninsula all had slaves and laws governing them, and slavery continued in early modern Spain and Portugal before declining and dying out in the eighteenth century.¹⁷¹

By the late 1400s, both the Christian and Muslim cultures were long accustomed to slavery and fighting wars “in the name of God.” However, the concept of “religious wars” was not something generally experienced throughout North America. Deloria, Jr. addresses this topic within his book titled *The World We Used to Live In: Remembering the Powers of the Medicine Men*.

Regarding themselves as unique, [individual tribes within the Americas] rigorously followed the commands of the spirits as they experienced them over countless generations and recognized that other peoples had the same rights and status as themselves. So the idea of quarreling over the traditions by which they lived was felt to be absurd. Religious wars, then, were simply inconceivable, and while they may have fought ferociously over hunting and fishing grounds or launched hostilities in vengeance, the closest they ever came to combat over beliefs and practices was to find medicines – powers – that could negate the medicine and power possessed by other peoples.¹⁷²

Indeed, Chief Joseph of the Peoples now known as the Nez Percé was recorded as having said the following regarding why he banned Christian missionaries from their lands:

They will teach us to quarrel about God, as Catholics and Protestants do on the Nez Percé Reservation [in Idaho] and other places. We do not want to do that. We may quarrel with men sometimes about things on earth, but we never quarrel about the Great Spirit. We do not want to learn that.¹⁷³

Although much of Western academia does not accept that there is a connection between past prejudices and present day academic research, writing, and teaching practices, “What is often overlooked is the role that research has played as a tool of colonization.”¹⁷⁴ Smith expands upon this:

Research is one of the ways in which the underlying code of imperialism and colonialism is both regulated and realized. It is regulated through the formal rules of individual scholarly

¹⁷¹ William D. Phillips, Jr., *Slavery in Medieval and Early Modern Iberia* (Philadelphia: University of Pennsylvania Press, 2014), 10.

¹⁷² Vine Deloria, Jr., *The World We Used to Live In: Remembering the Powers of the Medicine Man* (Golden, CO: Fulcrum, 2006), xxiii.

¹⁷³ Vine Deloria, Jr., *God Is Red* (Golden, CO: Fulcrum, 1973), 198.

¹⁷⁴ Adreanne Ormond, Fiona Cram, and Lyn Carter, “Researching Our Relations: Reflections on Ethics and Marginalization,” *AlterNative: An International Journal of Indigenous Peoples* 2, no.1 (2006): 175, <http://www.content.alternative.ac.nz/index.php/alternative/article/view/141/154>.

disciplines and scientific paradigms, and the institutions that support them (including the state).¹⁷⁵

Battiste (2008) echoes this viewpoint on page 503 of her paper titled *Research Ethics for Protecting Indigenous Knowledge and Heritage: Institutional and Researcher Responsibilities*:

Most existing research on Indigenous peoples is contaminated by Eurocentric biases. Ethical research must begin by replacing Eurocentric prejudice with new premises that value diversity over universality.¹⁷⁶

Likewise, Medin, *et al.* (2014) directly speak to the effect that gender, culture, and the lack of diversity have within Western Science on page 1 of their article titled *Point of View Affects How Science is Done*:

[Gender and culture] influence what we choose to study, our perspectives when we approach scientific phenomena and our strategies for studying them. When we enter the world of science, we do not shed our cultural practices at the door.

Medin, *et al.* (2014) provide compelling examples on pages 1-2 regarding the way in which cultural and gender bias has affected research in the field of evolutionary biology:

Despite popular images of Jane Goodall observing chimpanzees, almost all early studies of primate behavior were conducted by men. Male primatologists generally adopted Charles Darwin's view of evolutionary biology and focused on competition among males for access to females. In this view, female primates are passive, and either the winning male has access to all the females or females simply choose the most powerful male. The idea that females may play a more active role and might even have sex with many males did not receive attention until female biologists began to do field observations ... Likewise, Japanese primatologists 'gave more attention to status and social relationships, values that hold a higher relative importance in Japanese society.'

The paradigms and research methodologies put forth by Western academia have led us to where we are today with regard to the history of the Indigenous Peoples of the Americas and their relationship with the horse. We have arrived at a place where all future scientists, paleontologists, historians, anthropologists, zoologists, and archeologists are taught "the Western academic truth" beginning at a very young age. This version of history is reinforced through all

¹⁷⁵ Smith, *Decolonizing Methodologies*, 8.

¹⁷⁶ Marie Battiste, "Research Ethics for Protecting Indigenous Knowledge and Heritage: Institutional and Researcher Responsibilities," in *Handbook of Critical and Indigenous Methodologies*, edited by Norman K. Denzin, Yvonna S. Lincoln, and Linda Tuhiwai Smith (Thousand Oaks, CA: SAGE, 2008), 503.

media forms. By the time that these individuals reach adulthood, it is virtually impossible for them to see outside of the dominant Western cultural paradigm with regard to this topic.

The discovery of recorded evidence connecting the horse and humans within the Americas prior to first contact goes back to 1895, with archeological work done in the Yucatan by Henry C. Mercer. Although these remains were not scientifically dated, he concluded that they must have been from modern horses based upon the predominant theory at the time. Mercer recorded the following in his work titled *The Hill-Caves of Yucatan, a Search for Evidence of Man's Antiquity in the Caverns of Central America*:

European horses must have been cooked and eaten in the caves of Sayab, Lara, and Chekt-a-leh since the fifteenth century, to account for the fragments of bone and teeth discovered there; for we find no reason for supposing that the people of Yucatan knew the American fossil horse, or scattered its remains in late portions of their culture-layers.¹⁷⁷

More than a century later, a statement by Dr. John Clark, Director of the New World Archeological Foundation, as provided on the *FairMormon Answers website*, shows that despite technological advances that allow for the accurate dating of fossils, past assumptions still prevail. He describes what has occurred in his experience at Pre-Columbian (before AD 1500) archeological sites when horse bones are discovered. He states:

The problem is archeologists get in the same hole that everybody else gets in. If you find a horse – if I am digging a site and I find a horse bone – if I actually know enough to know that it is a horse bone, because that takes some expertise – my assumption would be that there's something wrong with my site. And so archeologists find a horse bone and say, "Ah! Somebody's screwing around with my archeology." So we would never date it. Why am I going to throw away \$600 to date the horse bone when I already know [that they're modern]?"¹⁷⁸

As this dominant culture version of history has been - and continues to be - taught to all students who have matriculated or are matriculating through the United States school system, it has also affected Native Peoples. The following is a portion of an interview with Suzan Harjo, a Cheyenne and Hodulgee Muscogee woman who is described as a "poet, writer, lecturer, curator, and policy advocate who has helped Native Peoples recover more than one million acres of land

¹⁷⁷ Henry C. Mercer, *The Hill-Caves of Yucatan, a Search for Evidence of Man's Antiquity in the Caverns of Central America*, vol. 135, *Civilization of the American Indian Series* (Norman: University of Oklahoma Press, 1975), 172.

¹⁷⁸ "Horses in the Book of Mormon," *FairMormon Answers*, last modified November 23, 2016, <http://en.fairmormon.org/BookofMormon/Anachronisms/Animals/Horses>.

and numerous sacred places”¹⁷⁹ Ms. Harjo was asked the following question in an interview: “*Columbus was just ‘a man of his times.’ Why are you so critical of him? Why not look at the positive aspects of his legacy?*” Her answer was recorded as follows:

What are those “positive aspects” of the Columbus legacy? If we are talking about the horse, yeah, that’s good. We like the horse. Indians raised the use of the horse to high military art, especially among the Cheyenne people and the tribes of the plains states. Was that a good result of that invasion? Yes. Is it something we would have traded for the many Indian peoples who are no longer here because of that invasion? No.¹⁸⁰

It is possible that Harjo does understand an alternative history of the horse that is aligned with her People’s TK and she is protecting it or the interview setting does not meet the cultural protocol requirements necessary to pass sacred knowledge forward. However, it is also possible that it simply was not handed down to her or that the predominant culture’s training did the job intended.

3.2 Methodology

In an attempt to avoid undue influences from such biases, I utilized an indigenous research paradigm and Critical Indigenous Research Methodologies (CIRM) to perform this research. As explained by Brayboy *et al.*, CIRM is defined as follows:

CIRM [is] an overarching line of thinking about methods and philosophies, is rooted in indigenous knowledge systems, is anticolonial, and is distinctly focused on the needs of communities ... CIRM is rooted in relationships, responsibility, respect, reciprocity, and accountability... Research must be a process of fostering relationships between researchers, communities, and the topic of inquiry.¹⁸¹

Jo-Ann Archibald includes a variation of this theme, which she learned from her work with First Nations Elders, in her book titled *Indigenous Storywork: Educating the Heart, Mind, Body, and Spirit*:

The Elders taught me about seven principles related to using First Nations stories and storytelling for educational purposes, what I term storywork: respect, responsibility,

¹⁷⁹ Barbara Miner, “Interview with Suzan Shown Harjo: ‘We Have No Reason to Celebrate an Invasion,’” in *Rethinking Columbus: Teaching About the 500th Anniversary of Columbus’s Arrival in America*, (Milwaukee, WI: Rethinking Schools, 1991), 4.

¹⁸⁰ Ibid., 5.

¹⁸¹ Brayboy, et al., “Reclaiming Scholarship,” 423.

reciprocity, reverence, holism, interrelatedness, and synergy ... I learned that stories can 'take on their own life' and 'become the teacher' if these principles are used.¹⁸²

In addition, as stated by Michael Anthony Hart in his article titled *Indigenous Worldviews, Knowledge, and Research*:

Indigenous methodologies are those that permit and enable Indigenous researchers to be who they are while they are actively engaged as participants in the research process... an Indigenous methodology implies talking about relational accountability, meaning that the researcher is fulfilling his or her relationship with the world around him or her. It required researchers to be accountable to "all my relations."¹⁸³

The term "all my relations" is paramount in many Plains Indian cultures. It is specifically prominent in the Lakota culture, where most every prayer ends with the phrase "*mitakuye oyasin*," or "all my relations," in acknowledgement of their foundational cultural belief system that all life is connected, and that mankind is related to and literally a part of all creation. It can also be understood as a prayer for all life. To my knowledge, there is no English word or phrase that can adequately describe this concept.

Shawn Wilson offers the following explanation to show the reason Indigenous scholars have found indigenous research paradigms to be a necessary component of their academic research:

Like myself, other Indigenous scholars have in the past tried to use the dominant research paradigms. We have tried to adapt dominant system research tools by including our perspectives into their views. We have tried to include our cultures, traditional protocols and practices into the research process through adapting and adopting suitable methods. The problem with that is that we can never really remove the tools from their underlying beliefs. Since these beliefs are not always compatible with our own, we will always face problems in trying to adapt dominant system tools to our use.¹⁸⁴

As a result of such experiences, "Indigenous people have come to realize that beyond control over the topic chosen for study, the research methodology needs to incorporate their cosmology, worldview, epistemology, and ethical beliefs."¹⁸⁵ ¹⁸⁶ Wilson goes further to explain

¹⁸² Jo-Ann Archibald, *Indigenous Storywork: Educating the Heart, Mind, Body, and Spirit* (Vancouver: UBC Press, 2008), ix.

¹⁸³ Michael Anthony Hart, "Indigenous Worldviews, Knowledge, and Research: The Development of an Indigenous Research Paradigm." *Journal of Indigenous Voices in Social Work* 1, no. 1 (February 2010): 9, https://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/15117/v1i1_04hart.pdf?sequence=1.

¹⁸⁴ Wilson, *Research Is Ceremony*, 13

¹⁸⁵ *Ibid.*, 15

the significance of “relationality” within indigenous research paradigms. He proposes that the relationship between indigenous methodology, axiology, ontology, and epistemology be viewed not as “four separate ideas or entities” as is common in Western academic paradigms, but rather as a “circle”:

Relationality seems to sum up the whole indigenous research paradigm ... Just as the components of the paradigm are related, the components themselves all have to do with relationships. The ontology and epistemology are based upon a process of relationships that form a mutual reality. The axiology and methodology are based upon maintaining accountability to these relationships ... An indigenous research paradigm is relational and maintains relational accountability.¹⁸⁷

As Wilson states within his article titled *What Is an Indigenous Research Methodology?* the concept and importance of “relationality” is one of the major differences between the dominant culture paradigm, which is built upon the “fundamental belief that knowledge is an individual entity, the researcher is an individual in search of knowledge, knowledge is something that is gained, and therefore, knowledge may be owned by an individual.”¹⁸⁸ He explains the following:

An Indigenous paradigm comes from the fundamental belief that knowledge is relational. Knowledge is shared with all of creation. It is not just interpersonal relationships, not just with the research subjects I may be working with, but it is a relationship with all of creation. It is with the cosmos, it is with the animals, the plants, with the earth that we share this knowledge. It goes beyond the idea of individual knowledge to the concept of relational knowledge.¹⁸⁹

As the purpose of my research was multi-faceted, I chose to utilize a Grounded Theory (GT) methodology in tandem with CIRM. The purpose of GT in research is to provide an “integrated and comprehensive grounded theory that explains a process or scheme associated with phenomenon.”¹⁹⁰ As Birks and Mills state:

Theory as the product of the investigative process is the hallmark of grounded theory research. This theory is directly abstracted from, or grounded in, data generated and collected by the researcher.¹⁹¹

¹⁸⁶ Michael Anthony Hart, “Indigenous Worldviews, Knowledge, and Research: The Development of an Indigenous Research Paradigm.” *Journal of Indigenous Voices in Social Work* 1, no. 1 (February 2010): 9, https://scholarspace.manoa.hawaii.edu/bitstream/handle/10125/15117/v1i1_04hart.pdf?sequence=1.

¹⁸⁷ Wilson, *research Is Ceremony*, 70.

¹⁸⁸ Shawn Wilson, “What is an Indigenous Research Methodology?” *Canadian Journal of Native Education* 25, no. 2 (2001): 176.

¹⁸⁹ Ibid., 176-177

¹⁹⁰ Birks and Mills, *Grounded Theory*, 13.

¹⁹¹ Ibid., 17.

For this research project, GT was applied in tandem with CIRM in order to develop an explanation as to the social behaviors and responses of both non-Indigenous and Indigenous Peoples and societies with regard to this topic. Glaser and Strauss explain what they understand to be the strengths of GT in the following excerpt:

... such a theory fits empirical situations, and is understandable to sociologists and layman alike. Most important, it works – provides us with relevant predictions, explanations, interpretations and applications.¹⁹²

As Helene Starks and Susan Brown Trinidad state within their article titled “Choose Your Method: A Comparison of Phenomenology, Discourse Analysis and Grounded Theory”:

[Grounded Theory] examines the “six Cs” of social processes (causes, contexts, contingencies, consequences, covariances, and conditions) to understand the patterns and relationships among these elements...¹⁹³

As GT “relies on theoretical sampling, which involves recruiting participants with differing experiences of the phenomenon so as to explore multiple dimensions of the social processes under study,”¹⁹⁴ I believe its application will enable a solid – and more unbiased - theory to be developed regarding the behavior and responses of both Indigenous and non-Indigenous societies with regard to this topic. Since the typical GT sampling size ranges from 10 to 60 people, the data collection strategies are a combination of “observation, interviews, and close reading of extant texts,”¹⁹⁵ and the concept of “process” is critical to both methodologies, CIRM and GT are compatible.

According to Birks and Mills, “process” is addressed in the following manner:

The concept of ‘process’ is often described as a characteristic feature of grounded theory... Emphasizing process during analysis forces you to identify relationships evident in your study arena.¹⁹⁶ The value of adopting process as central to grounded theory is enhanced when we broaden our conception of what we mean by the term itself. Corbin and Strauss define process as an ‘ongoing action/interaction/emotion taken in response to

¹⁹² Glaser and Strauss, *The Discovery of Grounded Theory*, 1.

¹⁹³ Helene Starks and Susan Brown Trinidad. “Choose Your Method: A Comparison of Phenomenology, Discourse Analysis, and Grounded Theory.” *Qualitative Health Research* 17, no. 10 (December 2007): 4. <http://journals.sagepub.com/doi/pdf/10.1177/1049732307307031>.

¹⁹⁴ Ibid., 5

¹⁹⁵ Ibid.

¹⁹⁶ Kathy Charmaz, *Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis*. (London: SAGE, 2014) **quoted in** Melanie Birks and Jane Mills, *Grounded Theory: A Practical Guide, Second Edition*. (Los Angeles, London, New Delhi: SAGE, 2015), 19.

situations or problems.’¹⁹⁷ Process, therefore, need not be limited to conceptions of time, phases, or stages, but can be seen as occurring in all aspects of the natural, dynamic nature of life.¹⁹⁸

In light of this, applying CIRM and GT in tandem throughout this investigation will only serve to strengthen the research being performed.

3.3 Transmitting and Receiving Sacred Knowledge:

It is important to acknowledge that there is a distinct differentiation between knowledge that is considered “sacred” and knowledge that is considered “secular” within Indigenous communities. As ancient knowledge surrounding the horse is considered “sacred,” the data gathering process for this project necessarily differs in significant ways from standard Western research practices. As Ron Eglash acknowledges in his article titled “Computation, Complexity and Coding in Native American Knowledge Systems,” “research in the knowledge systems of indigenous societies can be hampered by both cultural and technological assumptions.”¹⁹⁹ It is my understanding that much of the information included in this section has not been previously published. Accordingly, in order to explain the methodologies and methods utilized within this research fully and accurately, I recognize that more explanation is necessary. It is my hope that the information within this section might enable researchers to recognize past errors, and stimulate them to correct future processes so that Indigenous protocols regarding the transmission of sacred knowledge are respected and effectuated.

As will become clear in later chapters, ancient knowledge surrounding the horse is considered “sacred” by many Indigenous Peoples in the Americas. Before colonization, Indigenous communities had distinct and precisely organized societies. These societies were responsible for carefully holding, guarding, and cultivating such knowledge. Many Native Peoples had societies that held and cultivated knowledge around hunting, medicine, and battle. Likewise, there were societies for women and others for men. Therefore, in order to be considered worthy to carry traditional knowledge regarding the horse, it was necessary for me to

¹⁹⁷ Juliet Corbin and Anselm Strauss, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory*, 3rd edn. (Los Angeles, CA: SAGE, 2008), 96 **quoted in** Melanie Birks and Jane Mills, *Grounded Theory: A Practical Guide, Second Edition*. (Los Angeles, London, New Delhi: SAGE, 2015), 19.

¹⁹⁸ Birks and Mills, *Grounded Theory*, 19.

¹⁹⁹ Ron Eglash, “Computation, Complexity and Coding in Native American Knowledge Systems,” in Judith Hankes and Gerald Fast (ed) *Changing the Faces of Mathematics: Perspectives on Indigenous People of North America*. (Reston, Virginia: NCTM, 2002), 1.

have stepped into a number of “societal realms.” For example, the reader will note that this research contains TK regarding the care and husbandry of the horse, the horse in ceremony, and the horse in war and battle. These realms are reflected here because the traditional knowledge bearers who participated in this research observed my life path, behavior, intent, and the battles I have overcome before they determined that I was able to carry sacred knowledge within these realms.

Each of the traditional knowledge bearers interviewed in this study are keepers of a portion of sacred knowledge regarding this four-legged relative. What I learned during this journey is that they were only able to gift the knowledge to me to carry if I genuinely met the original conditions for the safe transmission and acceptance of sacred knowledge. Sacred knowledge cannot be transmitted simply “for the sake of research.” Each of these knowledge bearers made a personal determination regarding my status before our interview began. They also prayed and received spiritual guidance prior to passing their knowledge to me. Only at that point could they decide whether or not I would be a responsible “holder” of such sacred knowledge. Yes, Indigenous societies have broken down due to the effects of colonization. However, this does not stop serious holders of traditional knowledge from looking for the same conditions that originally needed to be met before they pass sacred knowledge forward.

The methodology regarding the safe transmission of sacred knowledge – or knowledge that is a sacrament - is not a “new methodology.” It is an ancient methodology that was designed with the help of the Creator (God) and the Ancestors. As the aim of this research project was to tell a truthful story, to unveil such truth requires the trust of project participants. In order to garner such trust within Indigenous communities, the following steps must be taken:

- 1.) Differentiate the knowledge: Is the knowledge you are seeking secular in nature or non-secular (sacred)?
- 2.) If the knowledge is sacred in nature, you must determine which “Society” or category of knowledge keeper would be responsible for carrying such knowledge.
- 3.) The researcher must recreate the conditions necessary for that traditional knowledge bearer to understand that it is safe to transfer that knowledge. “Safe” means that the researcher must honor the responsibility and the “burden” that the knowledge keeper carries for The People, the Ancestors, Creator, and the relations at issue (in this case

the horse). All four of these must be addressed for successful and respectful transmission to occur.

- 4.) In order to create these circumstances, the recipient must be a person who the knowledge keeper considers to be qualified to receive such sacred knowledge. Once the knowledge is transferred, the recipient becomes a knowledge bearer. Therefore, he or she must have the wisdom to understand how to responsibly utilize the sacred knowledge for the benefit of The People.

Based upon the teachings that I have received from Indigenous American Elders, it is my understanding that the above steps address the correct methodology to follow when seeking sacred knowledge from these cultures. The person seeking such knowledge must recognize the sacredness each step of the way. They must understand that such knowledge was gifted to the Peoples by Creator and the Ancestors. To try to secularize this in anyway does not show respect for the process and, therefore, it will not function. It is important to note that I am not seeking to create a methodology or method to help researchers gain access. Rather, I have spoken to Elders regarding what is required to receive and honorably carry sacred knowledge from a variety of different Indigenous American cultures. This necessarily involves many steps.

3.4 Methods

My journey with this topic did not begin in a Western academic classroom setting or in a library, nor was my education in this area compartmental or decontextualized.²⁰⁰ Kawagley and Barnhardt explain this further:

While Western science and education tend to emphasize compartmentalized knowledge which is often decontextualized and taught in the detached setting of a classroom or laboratory, Native people have traditionally acquired their knowledge through direct experience in the natural environment.²⁰¹

In keeping with the traditions of my Plains Indian ancestors, my education began with a spiritual experience I had involving a gift from an Indigenous “medicine man and woman” who lived on a New Mexico Pueblo. During a time when I was in desperate need of healing, they

²⁰⁰ Angayuqaq Oscar Kawagley, *A Yupiaq Worldview: A Pathway to Ecology and Spirit* (Long Grove, IL: Waveland Press, 2006), 97.

²⁰¹ Kawagley and Barnhardt, “Education Indigenous to Place,” 1-2.

gifted me with two horses - a red roan mare that had been trained (according to their People's traditions) to protect others during spiritual battle - and her four-day-old paint foal. My education continued with a vision that I experienced from my Ancestors. I gained this initial knowledge through firsthand observation, the utilization of all of my senses, and other experiential learning methods. Thus, began my role as a participant-researcher.²⁰²

Experiential learning in education is one that is prominent in indigenous cultures. James Johnson III explains, "Many protocols were not taught verbally but learned through observation. My father taught me to hunt and fish and other traditional skills through his mentoring."²⁰³ Indeed, Indigenous Peoples also learned a great deal regarding survival and developing sustainable ways of living and being by observing animals: "The starkness of the primitive land seemed to demand it, as the people, to survive, were forced to imitate some of the ways of the animals."²⁰⁴

This gift of two "spirit horses" came during a time when I was critically ill and modern medicine had no cure for me. In keeping with the traditional medicinal practices of my People, this couple had prayed to be able to help me. In response to these prayers, the man received a vision from his Ancestors with regard to my healing. He was "shown" that his pregnant mare would give birth to a paint foal, and that if the mare and foal were gifted to me in a specific manner, they could serve as powerful vessels that would aid in my healing process.

I describe the injury that I suffered during that time on page 12 of this work. The emotional, psychological, and physical injuries that I was left with were severe, and they were considered "incurable" by modern medicine. However, Indigenous communities throughout the Americas originally had traditional knowledge systems regarding healing that were effective in combating Post Traumatic Stress Disorder (PTSD) and repairing even the severest of injuries. As such avenues were available to me, I made the decision to pursue them.

²⁰² Natasha Mack, Cynthia Woodson, Kathleen M. MacQueen, Greg Guest, and Emily Namey. *Qualitative Research Methods: A Data Collector's Field Guide*. Research Triangle Park, NC: Family Health International, 2005. <https://www.fhi360.org/sites/default/files/media/documents/Qualitative%20Research%20Methods%20-%20A%20Data%20Collector%27s%20Field%20Guide.pdf>.

²⁰³ James Johnson III, "Becoming an Indigenous Researcher in Interior Alaska: Sharing the Transformative Journey" in *Indigenous Pathways into Social Research: Voices of a New Generation*, edited by Donna M. Mertens, Fiona Cram, and Bagele Chilisa, (Walnut Creek, CA: Left Coast Press, 2013), 194.

²⁰⁴ Velma Wallis, *Two Old Women, 20th Anniversary Edition: An Alaskan Legend of Betrayal, Courage, and Survival* (New York: Harper Perennial, 1994), 5.

Roughly two years later, when I was healed from my psychological and emotional trauma and from my physical injuries, my journey with this research topic became more intensive due to a vision that I received on a mountain known today by the dominant Western culture as “Bear Butte.” This hill, which is located in South Dakota, has been a place of pilgrimage for my ancestors for thousands of years. In this vision, I was shown a “key” that my Ancestors said had the power to expose “the great lie.” Through this vision, my Ancestors explained to me that if I would be willing to research the history of the Indigenous Peoples of the Americas and the horse and bring this story back to The People and to the world, that “great medicine” would be returned.²⁰⁵ At the time of this vision, I did not know anything about the “history of the horse in the Americas” other than what I had been taught within the United States public school curriculum. The version that I was taught is summarized succinctly in the description of a documentary titled *America Before Columbus* as follows: “Some 12,000 years ago, North American mammoths, ancient horses, and other large mammals vanished. The first horses in America since the Pleistocene era arrived with Columbus in 1493”²⁰⁶ These personal experiences and events helped to shape my role as a participant-researcher.

As Battiste explains, such experiences – and the epistemologies derived from such experiences - are aligned with those of Indigenous Peoples around the world:

Indigenous people’s epistemology is derived from the immediate ecology; from people’s experiences, perceptions, thoughts, and memory, including experiences shared with others; and from the spiritual world discovered in dreams, visions, inspirations, and signs interpreted with the guidance of healers or elders.²⁰⁷

Communication with the spiritual realm is one of the primary methods traditionally utilized by indigenous people to access knowledge. Shawn Wilson addresses this by sharing a story about an elder woman who was helping to teach a class of students about the medicinal properties of plants.

So, when the class was over I asked her, ‘How did our ancestors know that this plant could do this?’ So she threw the question back to the class. ‘So, how do you think they knew, or what did they do?’ And so the student in the class said, ‘ohhh ...’ It didn’t make sense to them that they would take the grasses and experiment and run trials. Because there in the

²⁰⁵ Elders from my Plains Indian heritage taught me that the term “medicine” within Native American cultures traditionally referred to “anything that helped you to get closer to the Creator.”

²⁰⁶ *America Before Columbus*, Top Documentary Films. (2010). <http://topdocumentaryfilms.com/America-before-columbus/>.

²⁰⁷ Battiste, “Research Ethics,” 499.

forest, there's so many varieties, and how do you know? And so her answer was, 'It came from above.' They were faced with certain conditions or problems that they needed solutions to, and they went and prayed for an answer, and received an answer and got direction”²⁰⁸

Likewise, Archibald explains in her work that, “dreams can be a source of Indigenous knowledge and they can provide guidance for indigenous research methodology.”²⁰⁹ Although I had no previous experience or “expertise” with horses, and I was not raised with any traditional knowledge regarding the way in which the Indigenous Peoples of the Americas prayed, worked, and lived with these creatures, the people who gifted me these animals during my time of need did have understanding as to their capacity to be used in healing, and they did grow up with access and exposure to their People's traditional knowledge surrounding the horse.

As a result of the spiritual experiences I had with these creatures, the physical healings I received through them, and the clearly ancient connection some of these Elders and medicine people had with these sacred animals, it became clear to me that the relationship that my ancestors had with these horses went much deeper than the dominant Western culture understands (or is willing to admit.) Once I began to live amongst these animals in larger numbers, I was able to observe them in a more natural, herd environment. The insight that I gathered as to their mating, reproduction, and relationship habits, patterns, and instincts, allowed me to discover what I perceive to be misstatements, misunderstandings, and misinformation within Western academia with respect to this topic. Had I not, “followed in the footsteps of my Ancestors,” regarding the way in which they traditionally perceived and cared for these animals, such discrepancies would never have been apparent to me.

Semi-directed interviews with Native Elders, medicine people, scientists, and horse experts also played a key role in this research. Deborah Cohen and Benjamin Crabtree state the following about semi-directed or semi-structured interviews of their work titled *Qualitative Research Guidelines Project*:

[Such interviews are often] preceded by observation, informal and unstructured interviewing in order to allow the researchers to develop a keen understanding of the topic of interest necessary for developing relevant and meaningful semi-structured questions. The inclusion of open-ended questions and training of interviewers to follow

²⁰⁸ Wilson, *Research Is Ceremony*, 111.

²⁰⁹ Archibald, *Indigenous Storywork*, 3.

relevant topics that may stray from the interview guide does, however, still provide the opportunity for identifying new ways of seeing and understanding the topic at hand.²¹⁰

It is important that the interviews conducted are aligned with protocol that is culturally appropriate. In order to ensure that this was done as respectfully as possible, I consulted with the Native Elders who serve on my advisory committee and asked for their guidance.²¹¹ Through this process, I was taught that I must always participate in such interaction with Native participants in a sacred manner. For me, this meant making prayers for guidance, as well as always seeking to understand the different protocols inherent to the different Nations to which the participants belonged. Although Western academia does not consider it necessary, I applied this process to both Native and non-Native participants as a sign of respect and recognition that “we are all Creators children” no matter our skin color, socioeconomic status, religion, gender, or ethnicity.

As is consistent with the principles inherent in CIRM, I spent many years conducting pre-research and developing relationships with the people who I thought might likely have been interested in participating or who expressly told me that they believed this project was important and indicated that they wished to contribute. As is aligned with indigenous protocols, each person who agreed to be interviewed was gifted with something that is culturally relevant and traditionally appropriate for such an exchange of knowledge. I use the word “exchange” here with specificity, as I have found that many of the people I interviewed had questions for me and wished for me to share with them my own research findings with regard to this topic, as well as some of the knowledge I had gathered from other Native Peoples. In such cases, we would discuss these things after their own interviews had been completed.

Where possible, I implemented triangulation. Triangulation is a research strategy that “involves getting information from multiple sources – the more agreement across sources, the more reliable and valid the information.”²¹² In addition, wherever possible, I interviewed multiple members of particular Nations. During my pre-research process, I learned that within many Nations certain types of knowledge is passed down through specific families or “held” by

²¹⁰ Deborah Cohen and Benjamin Crabtree, “Semi-structured Interviews,” *Qualitative Research Guidelines Project*, last modified July 2006, <http://www.qualres.org/HomeSemi-3629.html>.

²¹¹ Loretta Afraid of Bear Cook of the Oglala Lakota People and Tom Kanatakeniate Cook of the Mohawk Nation (Akwesasne) agreed to serve on my Advisory Committee and help me in this process.

²¹² Randy Stoecker, *Research Methods for Community Change: A Project-based Approach* (Thousand Oaks, CA: Sage Publications, 2005), 168.

particular individuals. Therefore, interviewing one person in a community about an issue does not guarantee that the researcher will gain an answer that reflects the Nation's complete knowledge – or all the knowledge that they might wish to share - on a particular topic. Likewise, it may not be considered appropriate to disclose certain knowledge to those outside of the Nation or particular community circles.

3.5 Summary

If the purpose of research is to further understand, grow in knowledge, and discover truth, it is imperative that “history” is not written in a way that simply validates the worldview of a dominant culture. Likewise, it is important to recognize that “research and science are social processes embedded in politics, economics, and ideology” ²¹³ and that they are therefore, subjective.

With regard to this topic, any traditional knowledge that the Indigenous Peoples of the Americas wish to put forward should be seriously considered by Western academia. Likewise, accounts given by early European explorers and settlers who ventured into the mainland of the Americas only a few decades after the initial conquistadors explored the Caribbean islands and a portion of Central Mexico, should also be taken into account – even if their observations, findings, and experiences were different than those originally noted by most Spanish conquistadors in the late 1400s.

For individuals to visit small geographical areas on multiple continents and expect that what they find there would allow them to make an accurate determination about the conditions across those continents in their entirety would make little sense and would be virtually impossible to do. Imagine visiting the Channel Islands off of the coast of California and then flying straight to Los Angeles, and attempting to make an accurate determination about the fauna throughout the rest of North America, Central America, and South America. Would those observations and determinations be correct? Would they match with those of people who had ventured into other areas of the United States, Canada, Central, or South America? Would those observations match the accounts of those whose ancestors had inhabited those lands for thousands of years?

²¹³ Kana'iaupuni, “Ka'akālai Kū Kanaka,” 34.

With geography and ecosystems as expansive and varied as that of the Americas, it would be impossible to come to a conclusion that would withstand the test of further exploration and research. However, the equivalent of this occurred in the case of the history of the Indigenous horse of the Americas and its relationship with many of the original inhabitants of what we know of today as North, Central, and South America.

In an attempt to avoid such undue influences from cultural biases, Critical Indigenous Research Methodologies (CIRM) was applied in tandem with Grounded Theory (GT) to reconstruct a more accurate history of the horse in the Americas, as well as provide an explanation of how we “got to this place” within academia with regard to this topic. Likewise, qualitative methods such as participant observation, semi-directed interviews, analysis of historical, academic, and scientific records, as well as discussions with other Indigenous Peoples, will allow for the respectful collection and inclusion of cross-cultural knowledge attained from both Indigenous and non-Indigenous sources. In addition, a number of methods that are critical to the successful application of GT will form the backbone of this project. Included among these are the coding and categorization of data throughout the project, concurrent data generation or collection and analysis, writing memos, theoretical sampling, and constant comparative analysis.

At the completion of this investigation, the available knowledge can be placed upon the table and evaluated with equal weight in order that prior assumptions and any racial bias from earlier times may be recognized, rejected, and discarded. Once these steps have occurred, the true history of the horse in the Americas will be free to emerge.

Chapter 4

Data Analysis of Interviews

Pre-research for this project was conducted from May 2006 until May 2015; a period of nine years. During that pre-research period, relationships were formed with Native and non-Native equine “experts.” For this project, the term “experts” is used to signify an individual who has acquired significant horse expertise and knowledge from life-experience, Western academia, Native ways of Knowing (Traditional Knowledge), breed or species preservation, ceremonial training, or Equine Therapy-type training. However, due to protocol issues and/or physical, geographic, or time constraints, not all of these individuals were able or willing to serve as formal research project participants. In addition, some individuals who participated in the pre-research phase of the project recommended others who they felt could offer a significant contribution. The researcher did not have a previous relationship with those individuals.

Formal interviews were conducted with 19 project participants over an eight-month period between March 2016 and November 2016. Each of these project participants has a great deal of expertise in their respective fields, and as a group they cover a wide range with regard to geographic location, background, profession, tribal affiliation and/or ethnicity, and position within their respective communities. This was done in order to increase the likelihood of capturing a more accurate perspective of the history of the horse in the Americas and to identify any patterns and/or inconsistencies. Since the Americas as continents are expansive, the geography and terrain highly varied, and its Native Peoples significantly diverse, it is believed that this wide range of participants offers the clearest opportunity to provide something of value to Western Academia, Indigenous Peoples, and the world.

For example, if the research project focused solely on the oral traditions and history of one Nation with regard to the horse in the Americas, although important, such a study would not likely offer the “full story” that this research project is attempting to piece together. Providing a wide range of perspectives from project participants who are highly qualified and represent an array of disciplines is expected to help better answer the research questions proposed.

Both Native and non-Native participants were chosen. Some are considered “experts” in their fields from a Western academic perspective and others are considered “experts” within their communities regarding their mastery of Indigenous culture and traditions. Many of these

participants have achieved recognition for their achievements and knowledge from both the Western Academic culture and their Indigenous cultures. A handful of project participants are considered “icons” within the equine community, as they have dedicated their lives to the preservation of remaining pockets of North American horse-lines.

Each one of these interviews was conducted in person at locations and times that were selected by the project-participant, as protocol-wise this method of communication is considered to be most appropriate and respectful within traditional Indigenous cultures. In addition, this allowed for the researcher to observe and experience the settings in which these various participants work and live. For example, if these participants happened to be caretakers of horses, I was able to view their herds or horses, see the way in which they manage and care for them, and note the phenotype of these horses. If they were scholars, I was able to see their offices and the settings in which they taught. If they were ceremonial leaders, I was able to experience the settings they choose for these and meet some of the individuals who come to them for guidance and help.

The majority of the project participants were selected during the years-long pre-research process based upon their level of interest, knowledge of the subject, and willingness to participate. As mentioned above, a number of Indigenous Elders who were very helpful in the pre-research portion of this project were unable to participate in the formal interview process for protocol reasons (such as the fact that their traditional knowledge and/or spiritual understanding of the horse is deemed to be “sacred” and, therefore, “private” by their communities so as to prevent further exploitation or ridicule by the Western culture.) In addition, there were seven project participants who did not have any prior relationship with the researcher (other than a telephone call or request for an interview), as they were recommended by other program participants or by people who knew of the research being conducted.

4.1 Project Participants

It is important to note that all but one of the project participants gave their permission to be openly identified within this study. Interviews were conducted in the following locations within the United States: Hot Springs, South Dakota; Piedmont, South Dakota; Linton, North Dakota; Portal, North Dakota; Albuquerque, New Mexico; Laguna Pueblo, New Mexico; Chimayo, New Mexico; Choctaw, Mississippi; Soper, Oklahoma; Anchorage, Alaska; and

Fairbanks, Alaska. Two interviews were also conducted in the Canadian region of Regina, Saskatchewan.

Indigenous project participants self-identified as follows: (2 participants) Mississippi Choctaw Band members, (1 participant) member of the Diné (Navajo) Nation, (1 participant) mixture of Indigenous (Cheyenne and Pequots) and non-Indigenous (French), (2 participants) Oglala Lakota Nation, (1 participant) Kainai or Blood First Nation; (1 participant) Choctaw and Cherokee Nations; (1 participant) mixture of Cherokee and European; (1 participant) Laguna Pueblo; and (1 participant) Métis and Ojibwe. Those who identified as “non-Indigenous” self-identified as follows: (1 participant) Spanish and Italian, but born and raised in Veracruz Mexico; (1 participant) American of Northern European descent; (1 participant) American of Russian and German American; (5 participants) European descent.

Project participants were divided into six categories that helped to designate their area of expertise with regard to equines and the information they contributed to this study. It was determined that creating such categories might enable the researcher to better provide context for the reader, as such life experiences will naturally affect a person’s perspective. It is important to note that many of the project participants qualified for more than one of these “categories.” The categories chosen are as follows: Traditional Knowledge Bearer, Teacher, Academic Scholar, Western-Trained Scientist, Caretaker, and Ceremonial Leader and/or Medicine Person. Of those interviewed eight were classified as a “Traditional Knowledge Bearer,” six were classified as an “Academic Scholar,” four were classified as a “Western-Trained Scientist,” ten were categorized as a “Teacher,” twelve were classified as “Caretaker,” and five were classified as “Ceremonial Leader and/or Medicine Person.” It is possible that there is one more project participant who also qualifies as a “ceremonial leader,” but as the researcher did not know this for sure, he was not added to that category.

The designation of “Traditional Knowledge Bearer” was given to those individuals who hold specific teachings about the horse, understanding as to the meaning of the horse for their People, and/or knowledge regarding the inner workings of the ontology, epistemology, and axiology of their People. Such knowledge was passed down to them by their ancestors, relatives, or community members, and others within their communities often seek them out for teachings, but not necessarily for spiritual ceremony. The individuals who were given this designation self-identify as being from the (2 participants) Choctaw Nation, (1 participant) Diné (Navajo) Nation,

(2 participants) Oglala Lakota Nation, (1 participant) Blackfeet Nation, and (2 participants) who self-identify as being of mixed Native and European ancestry.

The designation of “Academic Scholar” was given to those who have a career path in Western academia. Their areas of scholarly expertise range from Anthropology, Archeology, Indigenous Studies, Education, Bilingual Education, Wildlife Biology, Mental Health, Endocrinology, Genetics, and Equine Reproductive Physiology. Each of these individuals is either currently affiliated with a university on a full-time or part-time basis, or was in the very recent past and intend to be so again in the near future. The individuals who were given this distinction self-identify as follows: (1) Diné (Navajo) Nation, (1) the Métis and Ojibwe Nations, (1) Spain and Italy, and (2) European descent, (1) American of Northern European descent.

The designation for “Teacher” was given to those individuals who serve their communities in a teaching capacity. However, their “classrooms” do not necessarily follow a traditional Western format. In this case, these individuals currently teach or have taught in the following fields or settings: (1) Equine therapy, (3) ceremonial contexts, (1) Bureau of Indian Affairs schools, (1) United States high schools, (4) laboratories and/or graduate-level classrooms, and (6) national and international lectures and workshops.

The designation for “Western Trained Scientist” was given to those individuals who have had extensive experience studying what we know of as “Western science.” Three of the four people regularly work in laboratories and have experience with genetics, reproductive physiology and/or endocrinology with regard to equines or other species (in this case, the muskox), while the fourth individual worked “in the field” as an archeologist and anthropologist at Indigenous sites for many years. Although he has since shifted his perspective, this individual was trained to observe, interpret, and categorize his findings from a very Western culture perspective.

The designation of “Caretaker” was given to individuals whose knowledge of the horse largely came from, or is at least heavily supplemented and influenced by, the knowledge gained from actually caring for them physically, mentally, and psychologically on a daily basis. Seven of these individuals have extensive experience observing and caretaking horses in their natural environments, while four of the individuals in this category have experience preserving an entire breed or sub-species. Five of the individuals in this category have experience caring for a smaller number of equines on a daily basis (in situations where the natural herd dynamic is not

provided). In addition, there is one individual in this category who has experience with equine care, but she also has a great deal of experience preserving the muskox. She helps to run a research facility where she is responsible for overseeing the care of muskox and caribou, and she has traveled extensively throughout Alaska and Canada to observe them in their natural habitat.

Finally, the designation for “Ceremonial Leader/Medicine Person” was given to those individuals who serve as spiritual advisors for their People and/or their communities. These individuals have knowledge and training regarding ancient Indigenous ceremonies (such as the *inipi*, or “sweat lodge” and the *Wiwanke Wachipi*, or the Sundance for the Lakota) and/or knowledge about the healing properties of plants, and the inner workings of prayer and healing. The project participants who qualified for this category self-designate as follows: (2) Choctaw Nation, (2) Oglala Lakota Nation, and (1) of mixed Native and European ancestry.

4.2 Application of Methodologies

As discussed in detail in Chapter 3, Critical Indigenous Research Methodologies (CIRM) and Grounded Theory (GT) were utilized in tandem throughout this research project. CIRM were applied in the following ways: this investigation was conducted with the support of Indigenous and/or non-Indigenous Elders from many Nations and communities within the United States, the researcher worked closely with the community members who contributed to this research, and cultural protocols regarding the exchange and presentation of TK were respected. The following courtesies and protocols were extended to both Indigenous and non-Indigenous participants as required: all interviews were conducted in person at a time, geographical place, and setting that were comfortable, convenient and culturally and spiritually appropriate for the participant; interview transcripts were circulated to each participant for their review once they were completed; any suggested changes and/or additions to the transcripts by participants were made; and efforts were made to obtain the correct spelling for all Indigenous language words and phrases that were used within the interviews. In addition, cultural protocols were respected with regard to the interview arrangements. Examples of this included having another woman present during an interview with a traditional Lakota male Elder; and having family members present and available to support one participant who was legally blind and hard of hearing.

It is important to note that the researcher also made numerous trips to conduct interviews within the boundaries of sacred sites (such as The Black Hills of South Dakota) in order to

acknowledge and conform to cultural protocols regarding the type of knowledge exchange that was occurring between the project participant and the researcher. The researcher also physically visited some of the geographic locations where surviving herds of traditional Native-line horses are being cared for and/or survive in wild conditions. At times, the researcher was accompanied and guided by project participants, expert in the flora and fauna of the geographical area, as well as the behavior, husbandry, phenotype, and genotypes of these horses. These areas included Alaska, New Mexico, Wyoming, Colorado, Oklahoma, South Dakota, North Dakota, and Sasketuan.

In addition to CIRM, Grounded Theory (GT) was also utilized in an attempt to develop a grounded theory (an explanation based on data collected) regarding the behavior and reactions of both non-Indigenous and Indigenous Peoples and/or societies surrounding the history of the Indigenous horse of the Americas and the Native Peoples. First, the researcher sought to gather “rich data” from project participants, observations, supporting documents, and detailed narratives. In the book titled *Constructing Grounded Theory*, Kathy Charmaz explains:

Gathering rich data will give you solid material for building a significant analysis. Rich data are detailed, focused, and full. They reveal participants’ views, feelings, intentions, and actions as well as the contexts and structures of their lives ... Researchers generate strong grounded theories with rich data. ²¹⁴

In addition, memo writing and journaling were utilized post-interview to highlight the researcher’s thoughts, observations, research context, and feelings about the data received. Lora Bex Lempert’s article, titled “Asking Questions of the Data: Memo Writing in the Grounded Theory Tradition,” explains the following:

Memo writing is essential to Grounded Theory methodological practices and principles. It is the fundamental process of researcher/data engagement that results in a ‘grounded’ theory. Memo writing is the methodological link, the distillation process, through which the researcher transforms data into theory. In the memo writing process, the researcher analytically interprets data. ²¹⁵

²¹⁴ Kathy Charmaz, *Constructing Grounded Theory*, 2nd ed. (Los Angeles: SAGE, 2014), 23.

²¹⁵ Lora Bex Lempert, “Asking Questions of the Data: Memo Writing in the Grounded Theory Tradition,” in *The SAGE Handbook of Grounded Theory*, edited by Anthony Bryant and Kathy Charmaz (Los Angeles: SAGE, 2007), 245.

Finally, initial coding and categorization of data was utilized, as well as concurrent data generation, collection, and analysis. Judith A. Holton's article, titled "The Coding Process and Its Challenges," explains that coding accomplishes the following:

The essential relationship between data and theory is a conceptual code. Coding gets the researcher off the empirical level by fracturing the data, then conceptualizing the underlying pattern of a set of empirical indicators within the data as a theory that explains what is happening in the data. Coding gives the researcher a condensed, abstract view with scope and dimension that encompasses otherwise seemingly disparate phenomena.²¹⁶

The implementation and utilization of both of these methodologies was critical to support the type of data generation required to investigate the history of the horse in the Americas and its relationship with the Indigenous Peoples. Each of these steps described above were critical in ensuring the following: that project participants felt comfortable and safe in sharing their knowledge; that any new or unexpected information did not go unnoticed, that any patterns in data gathered from participants were noted, and that accurate correlations were made. Indeed, data generated from one interview often led to conducting research on an unexpected topic, and it helped to guide the line of questioning used in subsequent interviews.

4.3 Patterns Within the Data Collected

One of the things that was most surprising to the researcher was that the majority of the project participants, including those whom the researcher had not met until the start of the official data gathering process, had already noticed discrepancies within the dominant Western culture theory previous to their contribution to this research project. Many of these individuals had spent their own time, energy, and resources conducting different types of research regarding the history of the horse throughout their own lifetimes, and some had come to their own conclusions, which they were generous in sharing.

Of the nineteen project participants, fifteen had given previous thought and attention to this issue and had concluded that there were horses in the Americas before the arrival of the Spanish to the Caribbean in 1492. One participant had not given thought to this issue previously,

²¹⁶ Judith A. Holton, "The Coding Process and Its Challenges," In *The SAGE Handbook of Grounded Theory*, edited by Anthony Bryant and Kathy Charmaz (Los Angeles: SAGE, 2007), 266.

however, he described a type of horse phenotypically that had “always been there” in the New Mexico area and that was “different than the modern breeds.”²¹⁷ One participant provided a description of the traditional Choctaw pony as handed down to him from his mother, however, he did not specifically say whether he had concluded that their horse was brought to them by the Spanish in the early 1500s as history books say.²¹⁸ As the two remaining participants were approached not for their expertise on horses but on the muskox (in order to help the researcher develop a theory as to what may have occurred with the horses that were indigenous to the Americas during and after the last Ice Age), the question of whether or not they believed there were horses in the Americas before “first-contact” with the Spanish was not asked.

The personal research conducted by these fifteen participants within their own lives had been stimulated by one or more of the following: noticing discrepancies between the dominant Western culture theory and the traditional knowledge put forth by Native Peoples, receiving direct traditional teachings that are contrary to the dominant cultural claim, having firsthand experience with different breeds of horses, having firsthand experience with evidence that countered the dominant Western cultural claim, and/or having exposure to evidence that was contrary to the viewpoint put forth by the equine industry. When noticing these discrepancies, some of these individuals spent a significant portion of their lives contemplating these issues. Therefore, their explanations, the proof given by them, and the conclusions made are credible and compelling. Due to the high level of expertise held by the participants within their respective fields and the uniquely rich perspective this provides, the researcher will include their observations in their own words. It is important to note that within Indigenous communities, context must always be provided. Therefore, some of these responses may appear more lengthy than normal for that reason.

Within this Chapter, the main issues addressed are as follows:

- 1.) Whether or not the horse was in the Americas between the time period known as the “Last Glacial Maximum” or the last Ice Age and before the arrival of Christopher Columbus to the Caribbean in 1492;
- 2.) Any phenotypical descriptions of Indigenous American horses;

²¹⁷ Eldon Francisco, interview by Yvette Running Horse Collin, in his home in Laguna Pueblo, New Mexico, August 20, 2016).

²¹⁸ Harold Comby, interview by Yvette Running Horse Collin, at a Veterans’ Day pow wow in Choctaw, Mississippi, November 11, 2016.

3.) The project participants' conclusions about the dominant Western culture theory.

The interview excerpts regarding this issue, as well as the project participant categories and the way in which they self-designate, are as follows:

Caretaker (*European ancestry*): (Regarding the three possible sources for the curly horse in North America)

"In 1957 [Lyle Joseph Mead] went to the *Aishihik* Lake area where ... he met the mom of his then wife. She had a pierced nose [signifying her lineage from the] Nez Perce Indians ... And he got 20 horses from them ... So, we had the Nez Perce characteristics but the Athabascan Tribe, basically as far as I understand. Ok, and that's one. That's the one that I can contribute to. The other one is of course coming from the steps of Mongolia and coming over Beringia, the land bridge, which I have information on too. And the third is that somehow they were related to the mustangs that were brought over by Columbus, which I totally personally do not believe ... It doesn't make sense ... And another thing, as you know, they have been finding fossils that predate Columbus and horse skeletons, so I'm not really wanting to go for that third thing at all. But I just thought I had better bring it up."²¹⁹

Caretaker (*European ancestry*): (Regarding origin of the horses in the Americas, and what their behavior might be like if the environmental conditions were changing, such as with the Ice Age.)

"Well, it's hard for me to think that there was a world without horses here, and I know that there were ... Having seen a lot of wild horse bands in my lifetime, I have seen just how prolific they can be ... They are survivors, and I am not at all afraid that that the world will run out of wild horses, there will always be wild horses. Because these stallions are so cagey, and they can slip in and jump your fence and breed your treasured quarter mares and ... I don't think we will ever run out of horses ... Having survived a few memorable winters, myself, I think they had to get the heck out of here, and they can survive on very poor quality feed out on the wild. It's amazing. Where a cow will starve to death, a horse can paw the snow and eat the grass that is exposed in their track, and one horse will go along behind the horse ahead of it and literally live on what is uncovered by the footprints of the horse that it is following. And I think that what we have on this sanctuary are flint mines that are 12,000 to 14,000 years old. And the people who lived in those flint mines and worked them were – well there were various stories about what tribes they happened to represent. Some of the cliff drawings that are here on the ranch are of horses and they are very ancient drawings, but there is no way really of pinpointing how old they are, but we do know that from all of the tipi rings and the art and what they can put together and what they knew by the stories that have been passed from one generation to another, they can put together quite a bit about the last 12,000 years and here is no reason that if the horse did migrate across the land bridges, which seems to be a pretty sane theory, it could come back just as easily and people."²²⁰

²¹⁹ Janey Moen, interview by Yvette Running Horse Collin, in Anchorage, Alaska, October, 18, 2016.

²²⁰ Dayton O'Hyde, interview by Yvette Running Horse Collin, at the Wild Horse Sanctuary in Hot Springs, South Dakota, March 27, 2016.

Continued ... (Regarding a physical description of the “wild horses” that surrounded his uncle’s ranch in Oregon.)

“They were different horses. They tend to be short headed, and not very pretty to look at generally. Although you really found ones that were obviously beautiful, but they tended to be a little jug bellied but with great hearts. And I remember one of our cowboys captured a band of horses of all – they were of all sources, Indian horses that had escaped, and they put some good blood in those horses, but there was one little mustang, that was typical of the mustangs. He weighed less than 900 pounds, and he wasn’t very pretty to look at. He was a pretty hard horse to break.” ²²¹

Caretaker (*European ancestry*): (Regarding the history of the Lac La Croix ponies and the veracity of the dominant Western culture claim.)

“I remember them telling us they took them off Lac La Croix island, how they rescued them. They told all about how they were always around. The Elders say they have always been around. That they have just always been there. And, you know I just, I believe it ... No, I don’t believe in [the dominant Western culture theory] at all. I believe the Elders.” ²²²

Continued ... (Regarding a description of the Indigenous Lac La Croix ponies)

“Well, these ponies are very calm ... they want to please. Easy to train. A lot like, I compare them a lot like a quarter horse. They are not spirited. We have had Arabs, you know, all kinds of different horses. Just, strong, tough, very intelligent breed ... there’s just a lot of different things about the horse like, their dorsal stripe, their striped legs, their small hooves but hard ... their pasterns are a little bit different ... they can take the hardy cold. They have extra hair in their ears, long manes. They are just, they were a breed that was bred for Canada. They were meant for tough winters. And they seem to resist flies. They don’t want to come in in the winter time they will stay out. So, they are just a hardy. A very hardy animal ... There is just something different about them. They are very social with people. There is something different about them and I don’t know what it is. They are just so easy. Just easy keepers ... They go through a winter and they come through a winter if they are fed hay fatter coming out of it than they are coming in. They are just easy. They just stay in the bush, they are survivors. They don’t want to come out of the bush. You have to take the hay there. They don’t want to be in the barn, they don’t want to stay in the barn. They want to be outside. They can fur out. I have seen some of them have hair just like bear. Very coarse and they just want to stay together.” ²²³

Caretaker (*American of Russian and German descent*): (Regarding his opinion on the dominant culture theory that there were no horses in the Americas before Columbus’ arrival in 1492 to the Caribbean.)

“I think it’s “poo-hoo.” I really do ... well you take for instance, the way I understand it, Charlie Russell, when he started painting, a lot of critics said he didn’t know how to get

²²¹ Ibid.

²²² Kim Shoemaker, interview by Yvette Running Horse Collin, in Saskatchewan, Canada, June 24, 2016.

²²³ Ibid.

the structure of a horse correct. However, when Frederick Remington came up in the Northern Prairies he left a paragraph that said:

‘The Northern Bronco was almost always blue or red roan in color no matter how slight. They are the only horse that is square on the quarters and somewhat mulish about the hocks. Although not possessed with the activity of the Texas horse, they are much stouter and more docile.’

Now over a hundred years ago ... there was a total different structure of the horse up in the north country. If they were all coming from the Spanish like they say, why does he compare them to the Texas horse and tell you how different they are? Shouldn’t they be looking real similar, yet? If they are all coming from the same side?”²²⁴

Continued ... (Phenotypical description of the Indigenous American horse, specifically those known as the Nokota horses):

“Well, their structure is different. They are not built like other horses are. Most of them are real short backed and stout looking, you know ... They are very “people-y” horses most of them. They still got a real broad language compared to other horses, but they are slowly losing some of that. They are real easy to work with if you don’t insult their ... instinct. If you insult their instinct and stuff, then you can run into some trouble, you know. But usually if you get them to where they trust you, usually then things are pretty easy.”²²⁵

Continued ... (Regarding genetic work that had been done on the Nokota horses):

“Basically, it said that the old-line horses are extremely divergent from any modern breeds. It didn’t really specify anything but since then they have done DNA ... The first blood type they said, the closest horse that they could find to ... that had some of the genetics in them were the horses from the Iberian Peninsula. Some of the markers I guess they didn’t have on hand. You know, so but now with the DNA, Nordic genetics are showing up. Also, there has been some Irish blood and the Akhal-Teke, were the three major ones that are showing up in the DNA.”²²⁶

Caretaker and Teacher (*Laguna Pueblo, New Mexico*): (Regarding whether his People had any traditional knowledge regarding the Indigenous horse of the Americas that he is able and willing to share):

“No, we didn’t. The horse was never really regarded as a historical image. I mean, it was regarded as very important, but the only thing that I ever really learned was that if you treat a horse good, he’s going to treat you right also. And believe me that is the truth. As far as any religious aspects, or any historical aspects, no I never really did. What I was taught was that the horse is a companion animal, and I hear legally that’s what he is now.”²²⁷

²²⁴ Leo L. Kuntz, interview by Yvette Running Horse Collin, in Linton, North Dakota at the Nokota Horse Ranch, March 30, 2016.

²²⁵ Ibid.

²²⁶ Ibid.

²²⁷ Francisco, personal communication, August 20, 2016.

Continued ... (A physical description of an Indigenous horse that he had passed forward to another project participant):

“Oh, I was just talking about the horses that we had around. See, here in the state of New Mexico I guess the number one horse is the Quarter Horse. When the association was established in 1948, and of course it was a well-muscled horse with a very real, refined head. Good looking horse. But around here we had, would you say, smaller horses that weren’t as well muscled; not as good looking. But, they had stamina, I mean you could work with them ... Not big horses, not refined horses but very sturdy and very, you know, horses with a lot of stamina ... I was just describing what we had, you know, a smaller type horse, a more wiry-type horse, yet very gentle, very docile and capable both of being ridden and used, you know, in a wagon team. That kind of horse was what I was talking about ... They were just always around.”²²⁸

Caretaker and Teacher (*mixed Cherokee and European ancestry*): (Regarding Native-line horses and Traditional Knowledge regarding the horses in the Oklahoma area of the United States)

“People thought I was off my rocker, but I traded some straight across registered Quarter Horse mares for some little Choctaw mares. And I still have the descendants of those Choctaw horses today. As Darlene says, all I did is reintroduced her to her ancestral horse. The horses that she had and her family had as kids. Her dad actually lived up in the Moyers area for a long time, I guess they were born up there. And that’s where Johns Valley [is], known for the little wild Native American horses. As far as anybody knows there’s been a little cell of those horses up in that country forever, you know. And some of these horses went to the SMR registry, to the Brislawn’s, and they thought they were some of the best. Marianne Thompson in Wilcox, Arizona, she had that blood with her Black Hawk horse that came out of that same bunch of horses. And Kitty Brislawn, all of those had horses that came out of John’s Valley.”²²⁹

Continued ... (Regarding TK shared with him by a Choctaw man in the area):

“And on his momma’s side of the family, they all came here from Mississippi with the Trail of Tears, and then they had the first La Flor Choctaw’s, Greenwood La Flor brought lots of horses over here. But the story was passed down to them by his father’s side of the family, that there were already horses here before the Trail of Tears, before they were forced ... here in 1831. And I said, ‘Well, yeah, I think it’s a pretty much a known fact that there were Comanche and Kiowa horses and Osage and all that ... in this area, you know. There’s all kinds of documentation by Bonapart de la Harp in 1719 when he came through here ... and went all the way up to the Canadian River and made a circle back. That the horses were here.’ He says, ‘Oh yeah, of course La Flor is a French name and we know all about the French people, but it’s been passed down to us that there were horses here even before them. That, you know, before the Comanche and the Kiowa and all of them brought them into here, that there were always horses here.’ And I said, ‘Well, everything in history would contradict that, you know, saying that there really wasn’t any horses before they were brought here by the Spaniards and all that.’ He says, ‘I know

²²⁸ Ibid.

²²⁹ Bryant Rickman, interview by Yvette Running Horse Collin, in Soper, Oklahoma at *Chata Isuba* Ranch, May 29, 2016.

that's what they say, but they can't tell us what our ancestors have told us, you know, and that's on my daddy's side of the family.' He says, which was James Dunlap.”²³⁰

Continued ... (Regarding a physical description of the Indigenous American horse, mainly those located in the Kiamichi Mountains of Oklahoma and the Choctaw horses):
“They are different in structure, they are different in their nervous system, everything about them. They make you really think more of indigenous animals, you know, just like your deer, elk, and wolves and all that due to their alertness, and their willingness and then their reluctance also to trust people or any situation. But when you work with them properly, they really do have confidence in you. And as we all know, that can be done with a mountain lion, or a bear, a wolf, or anything if they are treated right and treated with respect. The horses in confirmation, they are a smaller stature, but there's nothing any stronger for their size than these horses. They are more narrow made, they are very sturdy. They are built to withstand long distances, heavy strenuous work, or long distances, whatever it may take. They are survivors. I've seen situations where these horses should have died, even where a veterinarian would say that they really should be put down because I can't see them getting over this. That leg broke, or we've had front legs broke on stallions, we have had the rear legs broke on stallions, which happens very, very rare, but at a time when you have 450 horses on 240 acres, things will happen. But most of the instances when there has been one with a broken leg, it's been where they have been bumped with a car or something like that.”²³¹

Continued ... (Regarding the Native horses' ability to survive):
“They are made the way they are made for survival. And they can take heat, they can take cold, they are narrow-made so they can disseminate the heat. They can get it out of their body a lot quicker than a real thick, heavy muscled-type horse. So therefore, they are able to go for greater distances without stopping. I've seen them survive real icy cold weather, not for long periods of time, but one time from December the 11th, I think it was to January the 16th we had a complete ice over and all of our waters froze up and everything, and it amazed me. I had heard Gilbert Jones tell of these stories. Everybody chops ice at times for them to drink. But these horses will go to their watering hole, and if the ice was too thick for them to paw through, they put their nostrils down to it and blow and blow and just keep blowing until they melt the ice. Then [they] suck it up immediately. And when they get that hole about five or six inches deep, then it starts thawing a lot quicker as they blow down in that hole and they get their water that way, you know. Where a lot of our other horses would stand there and [get hypothermia] and not make it ... nobody showed them how to do that. It's something they reach back into their ancestry [to find], just like they go to a stud pile and dig through the snow and ice to actually re-eat the undigested food they already marked their territory with, you know. And so, you say, how do they know to do that? They know to do it through survival. They can survive all odds.”²³²

Continued ... (Regarding TK passed forward by a local Choctaw man in the region):

²³⁰ Ibid.

²³¹ Ibid.

²³² Ibid.

“Even the guy I talked about a while ago that had an ancestry that knew the horses were here long before the Trail of Tears. He claimed that it was passed down from story to story on his daddy’s side of the family that there were horses here forever. And I said, ‘Well you can’t mean forever.’ And he said, ‘Forever, as long as there was people there were horses here. They were always back in the mountains, wild little horses always here.’”²³³

Continued ... (Regarding testimony from Gilbert Jones regarding the Indigenous horse of the Americas):

“There was a really big rodeo Quarter horse family that turned several Quarter horses loose about 20 miles from Medicine Springs. [They] had the idea at a time when you could get Quarter horse colts and young horses and all for nearly nothing. He was thinking how they could improve the little mountain horses just like they developed the Quarter horse, and when they turned them loose people were saying, ‘Oh, there will never be anymore [of the mountain horses].’ Well, there was an old man named George Porter that was an old Cherokee/Choctaw and lived up on that Cloudy road and he said, ‘Well, Jones won’t have to worry about those Quarter horses.’ He said, ‘If the first winter don’t take care of them, come Spring these little mountain horses will finish off the rest of them.’ I said, ‘What do you mean George?’ He says, ‘Well,’ and he’s the man who really helped us with our first horses, our first little Choctaw mare and everything, and he says, ‘Well, whatever the ticks don’t kill this winter, those little mountain stallions will finish them off this spring, you know.’ He said, and you know, he was right. There wasn’t many of them left. And I don’t think any of them ever got to breed a mare, you know. And so, the only problem that we have here that we ever had there in the mountains besides by man, was from ticks. And it was a shingle tick, a winter tick, and Gilbert says, ‘Well you know, it was impossible for me to get out there and dust every horse on the mountain.’ He said, ‘I couldn’t do it. Now it’s bad to say, it’s really bad to say,’ but he says, ‘Now Mother Nature has a way to take care of things like that.’ He says, ‘It’s called survival of the fittest.’ He said, ‘Now you can tell the world that the horses Gilbert Jones has got left here is from survival of the fittest. Now by God nobody knows what all they have survived over the years.’ He said, ‘It’s really not a known fact about the Ice Age.’ And he said, ‘These horses were here.’ And he said, ‘Now they can survive the ticks or whatever comes their way.’”²³⁴

Traditional Knowledge Bearer, Teacher, and Ceremonial Leader/Medicine Person (*Choctaw*):
(Regarding teachings from the Elders on Traditional Horses.)

“I think as far as history of the horses, the Elders knew about it but a lot of times things that used to be taught weren’t taught for a while. But if you really got an Elder and cornered the Elder they would tell you that we did have the horse. We had it way back and it wasn’t the Spaniards that brought it; we had horses.”²³⁵

²³³ Ibid.

²³⁴ Ibid.

²³⁵ William D. Isaac, interview by Yvette Running Horse Collin, at the Veterans’ Day pow wow in Choctaw, Mississippi, November 11, 2016.

Traditional Knowledge Bearer, Teacher, and Ceremonial Leader/Medicine Person (*Choctaw*):
(Regarding description of the Indigenous Horse of the Americas in the form of the Choctaw Horse.)

“Well, one of the things when we were going up in our home, we were taught that Choctaw people were special and one of the stories that I can still remember is about Choctaw ponies. These stories were mainly told to me by my mother, who passed onto the spirit world about 10 years ago. And one of the stories that she has told me is that ... the horse was painted. I guess it was like a pinto pony. Where she described it as it looks like somebody had painted the horse with a paint brush, and that’s the way that she describes it.”²³⁶

Caretaker, Teacher, and Traditional Knowledge Bearer (*Kainai or Blood First Nation*):
(Regarding acquisition of the horse and the theory that the Native Peoples of the Americas received the horse solely from Spanish stock.)

“I will tell you a story what my great-grandmother told me. I remember these stories because I was raised by ‘the old ones’ they call it in our language. And basically, my grandmother raised me. And my great-grandma they believe was born in 1880 and she died in 1976 when she was 96 years-old and she told us a lot of stories about everything. And right until the day she died she chopped her own wood. She carried her own water. She didn’t want electricity or running water. She said that was not ... who we are. It wasn’t ‘us.’ She was born before the first white man ever came to our settlements, our areas. And she told me a story about horses ... “*Ponokomitta*.” “*Ponokomitta*” means “Elk Dog.” That’s how we translate it, horses. And she said, way back in the old days a man was leaving for the *Oomspahtsikoo*, the sand hills, to go and do a vision. When we do visions, we do it for four days and four nights with no food or water. And he walked and walked and walked and walked. And he came to this area that was almost uninhabited because there was no food or water anywhere. And I think we call it the Palace Triangle now in this territory. And after days beyond his quest, he got lost. He didn’t know how to get back. So, he started seeing visions because he was dying. He was dying. No water, no food. And he seen this man riding this animal he’s never seen in his life. He was chasing a buffalo. And that man speared that buffalo right in the neck and the buffalo dropped. And he went running over there over the bluff to say, ‘Well, this man can save me. Hopefully he can feed me because I am dying.’ When he got there, there was nothing there. But in the ground, he seen this mouse, with this spear grass stuck in his neck. And he goes, ‘What the ... what am I seeing?’ All of a sudden over the bluff there he seen these ears popping up, and it came over more and more. And there was this herd of *Ponokomitta*. And he was looking at them and they were looking at him. And this was the time when horses could talk to you. I don’t mean how we talk with our mouth. But, through your minds. They walked up to him and they said, ‘We know you are dying. We are going to help you. We are going to help you and your people. The only thing we say is you take care of us forever. And you love us, and you love us divinely. And we will take care of you forever. And we will feed you and we will help you, clothe you and everything.’ So, he got on the lead horse and that lead horse took him back to the camp because he was lost. And off this whole herd comes with him back to the camp. And when they came in, they seen this man that was gone for days and he brought in all these

²³⁶ Comby, personal communication, November 11, 2016.

horses. That's how we got the horses. And we called them '*Ponokomitta*,' ever since then, 'Elk Dogs.' So, that's the story she told me of how we got the horses. I like that story better than anything else and this story, I've tried to search for it. This story that was told to me has never been written, and she told that to me ... And so, we've always calmly known we've always had the horses. Way before the settlers came. The Spanish have never come through our area. So, there's no way they could have introduced that to us." ²³⁷

Scholar, Teacher, and Traditional Knowledge Bearer (*Diné or Navajo*): (Regarding how and why he began to question the discrepancy between the dominant Western culture version and the Indigenous version of the history of the horse in the Americas, and what his People say.):

"I just think back to those stories that have been shared with me, and I know there's probably a whole lot more to it than just what was shared ... But you know, our origin stories or emergence stories, there's the mention of the horse. But often times I always wonder, you know, so they mention the horse, but then when you take an anthropology class or history class, there's this mention of the introduction of the horse from the Spaniards in the late 1500s. And then subsequently people talk about the Plains culture; how they became a horse culture. And so, you get to think about ... in our origin stories and our emergence stories as Indigenous Peoples, we mention the horse. So, what is that right, that contradiction? So ... at some point I was thinking, and wondering, I need to find that out. I need to find out what is underlying that. So, in one story, for example, in the Third World, when the people emerged into the Third World, things happened with the Diné People. Actually, it wasn't the Diné People, it was the Holy People. And I'm not going to go into the details, but just some events happened where they had to leave that world because of their actions. And so there was a flood, a great flood that was happening, and so in one version of the story they mention the Sun Bearer who is the diety or the entity that is now what we think of as the sun. How he brought out his horse and he was decorated ceremonially and then he got on his horse and he traveled to the east and then from that point on the sun started to rise. And so, to this day there's this idea that the sun travels across the sky on his horse. So, again, I wonder ... I guess the question I had was, where did the horse come from? Because if we are being told through Western education that it wasn't brought until the late 1500s, then why is it coming up in our stories? So, then I talked to some folks about it, Elders ... I read some things here and there. Obviously, that is not always the best source. But just even putting those two together, the written stuff but also the oral tradition, it became clear to me that there were horses ... I talked to again, Elders, these are like clan relatives. Like my grandfather, maybe an older brother, or just going to different presentations where people talked about different cultural knowledge that was shared. Sometimes it was around the horse or horses were mentioned. And one thing that kind of stood out to me, at some point ... I came across ... some Elders [who] were saying that there's a place out in Arizona somewhere. I can't for the life of me remember, but I think it's up there somewhere, there's Shonto, Rough Rock, Round Rock, up in that area. There's a lot of red, red rocks out there. That there's a place where you can see the footprints of the horse ... but what was said afterwards was even more interesting. There were a few older ladies who were

²³⁷ Beatle Soop, interview by Yvette Running Horse Collin, at an academic conference in Regina, Saskatchewan, Canada, June, 24, 2016.

talking about that as well as the presenter, that as *Diné* people we know that the horse was always here.”²³⁸

Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher (*Oglala, Lakota*): (Regarding whether he has any horse acquisition stories.)

“The only thing my grandpa told me about was on the eastern part of the Wind River Mountains that was called the hub. And the *Lakotas, Cheyennes, Arapahos*, and the *Crows* ... Those ... tribes all had their misunderstandings, but they laid down their differences and the Nez Perce brought the Appaloosa from the Northwest, and the *Crows* have wonderful horses. *Cheyennes, Lakotas, Arapahos*, the *Comanche* had some horses and the *Pawnee*. I never did hear too much about [physical] description but I heard a lot about the *Cheyenne* horse and the *Crow* horse and the *Nez Perce*. And there was some exchange of songs and food and also a time to go outside of your culture and find a wife. That was really encouraged. They [also] really had a profound way of keeping the bloodline pure.”²³⁹

Traditional Knowledge Bearer and Ceremonial Leader/Medicine Person (*mixture of Indigenous and non-Indigenous*): (Regarding the Indigenous horse of the Americas.)

“Horses, on the American horses I was taking a course at the School of Mines and Technology. I was taking an Anthropology course, a filler course, there. I want to talk about the Indigenous horses first, because I think that’s more important. I was doing my case study on the Zuni’s out of New Mexico and Arizona. Primarily I’d say South of Gallup, the Zuni Mountain, the Twins Peaks there where they survived. Kind of had a parasitic relationship with the Apache’s for many years there. It was there that I heard about the horses from that study. [The Zuñi] said, ‘Oh no, we had our own horses.’”²⁴⁰

Continued ... (Regarding personal research findings on this issue.)

“And, so, one of the Elders there suggested that I go to the archive center at ... the University of New Mexico there in Albuquerque. At that time, I was living in South Dakota and I was financially not capable of doing that, but I called the university anyway and I spoke to a lady in their Archive Center. I asked her if she had any documents from the conquistadors that had been in the New Mexico and Arizona areas, Colorado, Texas. So, what I’m really interested in is the letters that they wrote home. Not the stuff that they wrote as reports of their command. And this lady said, ‘Geez, you’re the first person to ever ask me for something like that. Everybody else wants to look at the officer reports.’ She said, ‘May I ask why?’ I said, ‘Well, what I want is the real story. And the real story is never written in the form of a report that goes to a Commander because you are trying to impress the commander. You’re trying to get a promotion out of the deal here. So, I want the real skinny. The letter that the officer wrote to his wife back in Spain or Portugal saying, ‘We come up against these Natives that are fierce,’ You know, and how they handled them. What was going on really there, the emotional state.” And, it was in those reports that she sent me, and she sent geez, a hundred and some pages that were all

²³⁸ Dr. Vince Werito, interview by Yvette Running Horse Collin, at the University of New Mexico in Albuquerque, New Mexico, August 19, 2016.

²³⁹ Basil Braveheart, interview by Yvette Running Horse Collin, in Piedmont, South Dakota, September 10, 2016.

²⁴⁰ Ted Ebert, interview by Yvette Running Horse Collin, in Hot Springs, South Dakota, June 25, 2016.

different, little short letters. Some were from officers ... most were written by officers for enlisted guys to send home. But what the enlisted guys didn't know was that none of the letters that they wrote were actually getting sent home because the stuff going home was the gold and the silver and the spices. There would not be room on board those ships for those. So, those got left behind. That's what ended up in the archives." ²⁴¹

Continued ... (Regarding conquistador experiences with the Indigenous horse.)

"One of the stories they talked about [in those letters] was the only thing that was more feared than the Natives was their horses. The people writing the notes said an Indian was killed, and they didn't say really 'Indian' but a Native was killed, a savage was killed, de-horsed, and the horse continued the attack without him. You know, carrying through our ranks and killing several of our men and several horses. And I thought that, and it was harder to kill the horse. The emphasis there was that it was more difficult to kill the horse. And there were several accounts of this. That the men in the attack were more afraid of the horses than they were of the warriors, or equally afraid of being attacked by the horses. And then, in one of the accounts that I did read from a Commander that he wrote back to the Command, that they were no longer able to proceed further north than they were at in the Colorado Territories. Of course, it wasn't listed as Colorado, but it was like "Trinidad," "Pueblo," and north of Pueblo, the established fort at Pueblo, because they had no more horses ... And it wasn't the savages taking their horses, it was the stud horses coming into the camp at night and stealing the mares out, cutting them out and taking them. And killing their stud horses. They had to be real careful with their stud horses because if they didn't pen their stud horses up, corral them up and have security around them, these studs would come and kill them." ²⁴²

Continued ... (Regarding claim from Western academia that there is no "fossil evidence" indicating that the horse in the Americas survived the Last Glaciation Maximum):

"... the reason that there isn't the bone artifacts left from these animals, is that unless there is a catastrophic, geophysical event that covers up an animal in the early processes of decay, we don't have fossil remains. And those fossil remains aren't present because the other animals will, even insects, will come and take that calcium. And within a short period of time that calcium that is on the ground is totally admonished. It's gone, it's been absorbed back into nature. So, the bones that are left out on the prairie today, three years from now they are almost gone and in ten years they will be gone. And there will be nothing left of that. So, when they say there is no evidence of horses here, well that's not true. The word as evidenced by the conquistadors says there was." ²⁴³

Continued ... (Regarding a physical description of the Indigenous horse of the Americas, specifically given by the *Lakota*):

"Just curly haired with a brown stripe down their back ... and zebra marks on their legs. And that they were articulated, they would scratch their ears like a dog, that's why they were called the, "Big dogs" because they behaved like a dog. They didn't have to pick up their rear hoof to scratch behind their ear and turn their head way over or get in a difficult

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Ibid.

body position. That they could scratch themselves like that, just like you'd see a dog scratching behind their ears. So, that was one of the things to watch for. They were more aware of where they were, so they behaved more like a person, not like an animal. They said if you ever want to find one, if you start singing Indigenous songs and doing a ceremony, they will come and dance. They will come right to that ceremony and behave like a [participant].”²⁴⁴

Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher (*Oglala, Lakota*): (Regarding importance of the horse to the *Lakota* Peoples and her family.)

“As far back as I could remember, my parents on my father's side got the Afraid of Bear name. It came into being ... just prior to the turn of the century. And they would go and steal horses from the Crow or from the surrounding tribes ... They had “horse families.” And then on the other side, my grandfather, Chief American Horse. The reason he has that name is ... he was tall, and there weren't any horses tall enough for him. Because his feet, when he'd get on a horse, his feet would always touch the ground. So, he went to Fort Kearney, Nebraska and they had some. They pillaged and they stole horses from them because the horses from the Fort were those real big, tall horses. And so, he brought them back and introduced them into their herds. And because he would do that, they called him, “He would take horses from the White People.” That's what they called him. “*Wasicu Tasunke*” is literally a translation of that. “He takes Horses from the White People.” ... So, when my grandfathers' went to go get horses, they would go as far away as Shoshone country up in Wyoming and Montana, and North Dakota up to Canada. They followed all of those routes. And they would bring and introduce horses into their herds. And so, it was the thing to do. I mean, that was one of the jobs that they had, to always improve the stock.”²⁴⁵

Continued ... (Regarding whether or not their “traditional horses” were different than the European horses.)

“I would say they were because a lot of our men were very lean and they were very tall ... Particularly my American Horse family. The men are really tall, and I remember Grandpa Charlie, he was a really tall man. But also, my Grandpa Rex, my mom's dad, Rex Long Visitor Holy Dance. My grandpa must have been about maybe 6'4”. He was tall; they were tall. So, they couldn't just get on a regular horse because they were not tall horses. What they saw was that the European horses, I guess that the military was using, how tall they were. So, they went after them ... To them, you know, they probably thought that, “Well, if we breed these two together maybe we'll get a taller horse.” Their horses were not tall from the way I understand it.”²⁴⁶

Continued ... (Regarding any Creation Stories that might show the importance of the horse and pre-date it to the arrival of the first Spanish horses to the mainland in 1519)

“They said that when the prayers were being said and the directions were being laid out, the “*Tate*,” the wind. All of the elements coming together. Even in terms of how the

²⁴⁴ Ibid.

²⁴⁵ Antonia L. Afraid of Bear-Cook, interview by Yvette Running Horse Collin, in Piedmont, South Dakota, September 9, 2016.

²⁴⁶ Ibid.

animals that were placed in the circle for the medicine wheel. You have Thunderbird. You have Thunder and Lightening in the west, and because they have no form, they say that Thunderbird speaks for them as a form that you can see and it is tangible. And then to the north it's the buffalo. To the east it's the Blacktail Deer, and to the south it's the eagle. And the four relatives have all of these. The Horse Nation was ... I can't think about it in any other way except in the realm of like, royalty ... When we had the lessons coming to us in Creation story, it had to do with the first ones that were here, the four-legged. So, with that horse and the rest of the four-leggeds, they all come. But the horse was the first one. At the beginning, at the top. That they accord that relationship to ... On the horses, they have such powerful medicine that when they accorded the directions, one of the things they talked about was that it was the White Buffalo Calf Woman, when she came and she brought us those colors. They said ... in that direction are the black horses, and then in the direction of the north are the red horses, in the east the yellow, and in the south the white.”²⁴⁷

Western-Trained Scientist, Caretaker, and Scholar (*Italian and Spanish ancestry, born in Mexico*): (Regarding the types of horses he saw growing up in Veracruz Mexico and the three types of horses he observed in the area.)

“I was born in Mexico from an Italian mother. And the first thing that I noticed, because I had a bunch of friends that had farms, was the Mexican horse was two or three types of different horses. The first one I am going to describe is a wild horse I saw when I was a little kid in some of the coffee *fincas* that we have in the area of Veracruz. I clearly remember one time we were ready to check some coffee plantations and we were on some really basic horses. Boney type of horses, not skinny but they're boney by nature ... Easy going. Certainly, my uncle used to own the farm, used to have like an Andalusian type of horse, totally different horse. A Spanish horse, but his were like “*Criollos*” we called them “*Caballos Criollos*.” We were going, passing these patches of jungle and patches of coffee plantations you know, and then I saw these little horses. They looked like goats and I totally feel in love with these things. I [saw] these things watching you like a deer that you see through the woods. And I asked my uncle who was a horse person, my *Tío Ernesto*, what kind of animal [they were]. He said it's *Ganado Caballar* ... It's like “horse-like livestock.” ... And then my explanation is “*Ganado*” translates like “livestock.” And “*caballar*,” the word *caballar*, *viene del “caballo,”* the horse and the prefix or the ending of “ar” is type. It's “type of *caballo*,” it's kind of type for livestock but it's wild. So, that's the equivalent of the “Mexican mustangs” is what I was talking about. And this is in the area of Veracruz in Mexico. It was close to a town. The town I remember was *Tlacotepeq de Mejia* ... Like I say, they're too little, we cannot use it to work or anything like that. But they're wild there. You can hunt them or something like that, but we don't hunt them. They just live there. So, that was the first time I understood that there was a totally Native wild horse and this was like in ... 1955, '56, '57. I went looking for these and they were in the brown colors, all the time with stripes in the legs or in the top. Coarse hair ... You can see these things, and if you have enough patience you can be close to them. And I tried to go and see the area they were close to which trees and how big they were. You're talking about an animal that is less than 13 hands ... And the hoof prints are totally smaller compared to a regular horse, but at the

²⁴⁷ Ibid.

distance you look and they are bigger hooves proportion-wise than the other ones. And the bones were almost like a deer bones. Their awareness was totally different to a regular horse, because a regular horse is grazing and watch you to see where you are. These animals hear anything and they just move faster and they organize in the group moving. Regular horses when they move, they spook and the whole bunch goes together ... they move fast and they put somebody in front that knows where they are going.”²⁴⁸

Continued ... (Regarding the dominant Western culture theory that there were no horses upon the arrival of the Spanish conquistadors and explorers):

“The Spanish horse is not 100 percent responsible for the number of horses in the Americas now. Probably part ... the Spanish horse that came – the *Sorraias* and the *Andalusions* – don’t have the gene of paint, or medicine hats, overos, *tobianos*, and all of that kind of stuff. That didn’t exist almost there, at all. And there are some appaloosa and leopards and stuff like that. I’m totally positive that there were pockets, like in the Sherbet Canyon, the *Barrancas del Cobre* [Copper Canyon] ... In Veracruz, there are ... canyons in which nobody penetrates ... I mean, in Baja California there are some things that you cannot even get into [with] a helicopter; they cannot land. It’s full of cactus and there are little horses around there surviving. It’s absolutely insane that all the horses there in the United States originally were brought by the Spanish. Those boats that the Spanish brought, they put those horses in harness and on top of that they hang those harnesses on posts, and they bring those animals for around two months that way. Being as infertile the horses are as a farm animal, certainly some can probably mix I am sure. Horses mix. The horses have been mixing for thousands and thousands and thousands of years, and they can mix with something else. There is a really good base of Native American horses in at least Central America and North America. There are these types of horses.”²⁴⁹

Academic Scholar, Caretaker, and Teacher (*Métis and Ojibwe*): (Regarding whether the Indigenous horses of the Americas were here before the arrival of the Spanish in the late 1400’s and early 1500s.)

“So, I have been spending mainly my personal time, when I am not working as a professor at the University to kind of explore and research the [Lac La Croix ponies] and get a better understanding about how to combat the colonial history of this horse ... It’s just shocking that ... when they hear about Indigenous ponies, the first thing that comes out of [people’s] mouth is, ‘That’s not true.’ Right? ‘There weren’t horses here.’ But what I have been finding, as I am doing my own research, is that there are Elders that are discussing the fact that the horses were always here. The Lac La Croix Indigenous Ponies were in the area that I originated, my homeland. And that there are still Elders today that can speak on the importance of them spiritually and culturally for their people. So, I have been researching that, and one of the really amazing radio interviews that documents the importance of the Lac La Croix Indigenous Pony breed is one by Larry Aiken, who is a historian for the Leech Lake Band of Ojibwe, and heads the American Indian Studies program at Itasca Community College and he says in his interview (to paraphrase), ‘The

²⁴⁸ Oviedo, M., personal communication, August 20, 2016.

²⁴⁹ Ibid.

Lac La Croix Indigenous Ponies were always here. I want people to know this. This is important that people know this.”²⁵⁰

Academic Scholar, Western-Trained Scientist, and Teacher (*American of Northern European descent*): (Regarding the Western academic version of the history of the horse in the Americas and his observations and thoughts about this.)

“Now, the contention is of course that when they arrived in the Americas, the Native Peoples had no horses. And of course, this was first happening in the Caribbean, where the horse isn’t really a practical animal in any way. However, the horse had continued to exist in the Americas. [However,] at some point, which was always a kind of cloudy, ... nebulous kind of a time period ... the horses of the Americas had been hunted to extinction by Native Peoples. Between that and the warming that followed into the Ice Age, the spread of forests, particularly in the Eastern United States or other parts of the Americas, the environment became less well-suited for horses or large herds of horses. Therefore, as Native People hunted them their numbers dwindled to a point that they would no longer be sustainable and the remainder of these horses died off. We were taught about how Native folks would have massive drives. You’ve heard of the buffalo drives of course. Well, this would happen with horses too. They would run them off cliffs and they would just take what they needed and leave. Of course, that goes against everything we know about the ethics of a hunting people, an Indigenous hunting people. Later I came to talk with people who said, ‘Oh well no, they ran them off but everything was taken.’ It wasn’t just like they took the best of what they wanted and left or that kind of thing. Of course, this is also presuming that all Native groups are running them off of cliffs everywhere, because of course we know there are not cliffs everywhere ... the horses were, like in most of North America. Likewise, the weapons technology that was being used for hunting these horses - considering the postulated population sizes - it would have taken a huge number of people hunting day and night, constantly, constantly scouring the plains and the forest and everything else to try to find these animals. And we all know that when one food source becomes scarce people move onto a different food source. They don’t hunt the other one – the preferred one even – to extinction. And of course, it goes against anything I’ve ever run into as far as the ethical behaviors of not only Indigenous North American horse hunters, but anywhere in the world that I have gone. Everywhere in the world that I have gone, hunter gatherer Peoples who are Indigenous Peoples seem to have the same ethic of hunting. That you don’t take what you can’t use, that you stop taking when the population looks stressed or strained, that you recognize that the population is giving these bodies to you, that the spiritual population behind the life is giving these bodies to you. And so, why would a group devise a belief that said, ‘We want to give it all to you until we don’t exist anymore in a material form.’ And so, it just seemed to me as I was going through anthropology classes and reading about things and so forth, that this seemed more and more dubious.”²⁵¹

²⁵⁰ Anonymous, interview by Yvette Running Horse Collin, in Portal, North Dakota, March, 31, 2016.

²⁵¹ Dr. Mike Koskey, interview by Yvette Running Horse Collin, at the University of Alaska Fairbanks in Fairbanks, Alaska, October 18, 2017.

4.4 Summary

It is clear from each of these above cited responses that the project participants quoted have identified significant inconsistencies within the dominant Western cultural claim that there were no horses in the Americas upon the arrival of Christopher Columbus and subsequent explorers in the late 1400s and early 1500s. These participants had traditional knowledge and/or teachings to the contrary, firsthand experience and information developed with traditional horses that openly conflicted with this claim, exposure to or experience with equines that did/does not meet the description of the horses brought over by the Spanish, geographical, environmental or scientific evidence that did not support such a conclusion, evidence developed from a combination of the above scenarios, or they simply found significant holes within the Western academic claim because the details or conclusions provided did not align with what they know to be true of Indigenous cultures, environments, and traditions.

This conclusion can be considered credible for the following reasons: many of these project participants are considered “equine experts” or “experts” within their own field, many of them have been immersed within their fields for decades, they represent a broad range of both Indigenous and non-Indigenous cultures with relevant knowledge impactful to their conclusions, they have firsthand knowledge of a variety of geographical and environmental areas throughout North and Central America, and their traditions, languages, histories and cultures have not traditionally been shared with one another. Therefore, it would be impossible for them to have gained these ideas and conclusions from each other; rather they were developed completely independently over long periods of time. In addition, many of them have had extensive training in the Western educational system, the traditional Indigenous educational system, or significant exposure to both. Likewise, many of these individuals have hands-on experience with the traditional native horse and natural horse behavior, which allows for them to more easily identify inconsistencies in books, articles, and academic works that are often written by people with little experience as to the nature of equines, and in particular traditional native horses.

Based on their observations, teachings, and experiences, some project participants came to their own conclusions regarding what they actually believe occurred within the Americas with regard to the history of the horse, or shared knowledge that can be used as clues for researchers. Some of their determinations are as follows:

Traditional Knowledge Bearer and Ceremonial Leader/Medicine Person (*mixture of Indigenous and non-Indigenous*):

“Now, the other thing that I heard was that the reason that the indigenous horse herd of the Americas was almost totally decimated was that when Ponce de Leon came in through Florida, and went out through New Orleans, the diseases that he brought with him not only killed 60 to 70 percent of the human beings that were on that side of the Americas, but it killed 80 to 90 percent of the wildlife there ... the same thing was happening in the south when the conquistadors started coming up into the Americas there out of Mexico. It wasn't so much that their soldiers were capable of defeating the Natives, it was the disease that was defeating them. Because every time they came in contact in a trade method or even during battle, the survivors took back disease. And the horses were diseased and dying too. And it killed off a great number ... There again I thought they had been wiped out too. From the time I was early age I thought, ‘Geez, grandpa's and the *Unci*'s that had talked about horses and told, ‘Before,’ they'd say, ‘Before horse stories, that the before horse stories are actually in between the wiping out of the majority of the horses and then having the horse again, the domesticated horse again. That was the European style horses.’ So, there was a time period that the Indigenous People were virtually put on foot from back in the east because of this. Or no longer had the horse to help them move camp and that kind of thing, much like they used the dogs to do, to move equipment and stuff. So, anyway there was the before horse stories and the after-horse stories. But that was actually the in between time period.”²⁵²

Scholar, Teacher, and Traditional Knowledge Bearer (*Diné or Navajo*):

“So, then going back to our history, our stories, our origin stories ... There's two ways that people talk about it. There's people who say, “the return of the horse,” but then when you listen to other accounts it's “when the horse was,” so in Navajo we say, ‘*Nidiilya*.’ It was found or discovered. So, you wonder, you know, what does that really mean? ... On one hand, one suggests that people knew about the horse, but somehow it was returned to them, would be one way to think about it. On the other hand, the other one suggests that there was a time, we don't know when, we don't know if it was 1,500s, 15,000 years ago, or when that horses were found, right? So, that's what I am saying, you don't really know which version or what they are really saying. But in our stories, we say the horse was found, and it wasn't 5-fingered human beings, it was the Holy People who found the horse. And there's a character in our story who, with the assistance of the Talking God then created the horse. And, there was a horse to the east, the south, the west and the north, and then there was a variation of all of them. And so, then they say the horse was sung into existence. So, now we have not just the story but the horse songs.”²⁵³

Western-Trained Scientist, Caretaker, and Scholar (*Italian and Spanish ancestry, born in Mexico*):

“... The Spanish people are really interesting, because they bring chickens and pigs, certainly they bring sheep and they bring some horses. But some of these animals were bred. You like to look for purity in certain breeds. They have a little bit of the wild hogs. They have a little bit of the wild sheep, because they mix and they flourish. If they are

²⁵² Ebert, personal communication, June 25, 2016.

²⁵³ Werito, personal communication, August 19, 2016.

hybrids, that they are fertile they keep going. And in the horses you can do some hybrids that are not fertile, like the mules. But some others in between *Equus Asinus* and *Equus Caballos*, there is the mule and those are not fertile but in *Equus* with *Equus* they will be fertile and keep producing ... And certainly, you consider the years Columbus “discovered” America. You don’t consider any Vikings or anything like that. You know, if they go to 1492, how many horses you can bring in a year in those boats at that time? How many of those boats were lost at sea? How many horses died in between? To have this [level of] population, its almost illogical to think there were no animals here ... But my opinion is we have an established type of horse in the Americas in different pockets that survived the era of the ice.”²⁵⁴

Continued ... (Regarding the physical barriers between Central and North America and the probability that the first Spanish horses that reached the area of mainland Mexico in 1519 could also be the same horses spotted in the Georgia and Carolinas in 1521:^{255 256} “I think the *Tapondel Dariem* in Panama, those swamps, that’s a barrier. It’s like the *Camelidos* having a barrier and then you go to Peru, Ecuador, Bolivia. They have llamas, *vicuñas*, *alpacas*, *huanacos* and stuff like that. Part of Argentina, Uruguay have those things but they didn’t come up because the area *Tapondel Dariem*, in other words the biggest swamp there in Central America. They never passed through there actually. They tried to make a road to pass there, *La Carretera Panamericana*, and they tried for so many years and everything sinks ... Well, the chronology and the distance these people need to travel are almost telling you that they were two different events, you know. One with Native Americans and one with Mexico, because I have the tremendous experience to work in Mexico and those *Huasteca*, in other words to arrive in Mexico they arrived to Veracruz. And to Veracruz to pass all this *Huasteca* and go to Mexico City you don’t believe the vegetation and the geography to pass through. If they put you to Veracruz and tell you, “Come to Mexico, bring these horses.” It would take you months and months to try to find a route. Then to go all the way to the north is just insane. I mean, it’s insane.”²⁵⁷

Continued ... (Regarding personal experience trying to pass this route on horseback.): “I used to be in a group of people that we used to go on horseback from Chihuahua all the way to Zacatecas. It took us weeks, and if we don’t want to be on the highway, it was almost impossible to pass through those sierras ... Some of those people in the group were great-grandsons of Francisco Villa and Emiliano Zapata, and to pass through those sierras they need to have somebody who knows how to pass. They use the trails of the wild animals that were there. Some of those trails that we used to go to Zacatecas were called “coyote trails.” They were really narrow and they were from wild animals. They were not a good size to pass a horse. So, in some instances you have to come down from the horse and use your machete just to make enough space to pass and there are logs in the middle, and there are creeks and there are rivers. You don’t know how the river goes and you go two or three kilometers up, two or three kilometers down and you don’t even

²⁵⁴ Oviedo, personal communication, August 20, 2016.

²⁵⁵ Thornton, “490-year-old Spanish documents Describe an Irish Province in South Carolina.”

²⁵⁶ MacNutt, *De Orbe Novo: The Eight Decades of Peter Martyr D’ Anghera*, 259.

²⁵⁷ Oviedo, personal communication, August 20, 2016.

know how to pass that thing. And from Veracruz up north, you are going to have in those *Huastecas* so [many] rivers and waters ... And there are some rivers that I don't even know how they pass, like the *Papahuapa*. So, it's impossible to move horses in three or four or five, six years through there. It's not like you have 911 or you have your cellphone, or somebody can come and help you in a helicopter, or ... bring an ambulance. These people were surviving on their own. I don't mean that they didn't move, but they didn't move that fast to make the chronology that you put there.”²⁵⁸

Continued ... (Regarding other dangers that the Spanish may have encountered on their journey from Central America to North America based on his personal experience): “I mean when we used to do these *cabalgatas* [calvacades/processions] from Chihuahua to Zacatecas, we used to go with the horses and there are wild horses or a horse in the pasture and they follow. I mean, they'd get scared because sometimes here would come a band of horses, and there is one dominant stallion and they don't want you in their territory. There are some young stallions looking for a band and they follow you, so if a person rides enough horses like I did in my time, you know that it doesn't matter if the person is on top of the horse. If the mare's in heat, the stallion can jump on top of you and the mare. And you can be on the stallion and you can be on top and the stallion is going to jump on the mare. That tells you that they don't care too much about humans when they're doing their things. And we used to go (Chihuahua is a huge state) all the way down to Zacatecas. That took us weeks and we encountered all kinds of different wild horses and they follow and they follow for days. Then you tie those animals in the night real good and you *mañarlos* [hobble] in order that they don't escape. And you're really worried because if those animals escape and you cannot get ... back to civilization. I mean, that's where those people passed through. Then how many hours? I work in different *ranchos*, that you cannot get to because there's no road. And I get on horseback going to some properties when the light goes down, and man, the horses know the road and then you just trust the horse and just put the reins there and do whatever you want on top of the horse ... And I tell the person that knows the road and the horse that knows the road, just mark the horse with some white on the back of your saddle or something. I can at least know where we are going. Because if the animal stops, you cannot see anything. And if you start putting lights, the animal starts getting spooked. They don't adapt. It's not like a car, 'Where's the light?' You cannot guide a horse like that. So, that's another thing. Going on horseback, it's limited to light.”²⁵⁹

Academic Scholar, Western-Trained Scientist, and Teacher (*American of Northern European descent*):

“And so, the explanation that I have been exposed to over and over again in my academic education, it just doesn't fit with the patterns that I see elsewhere in the world. It makes little sense that ... all Native People, all over the Americas contributed to hunting the horse to extinction. Likewise, seeing the capacity for horses to exist in Arctic environments and in desert environments and so forth, it seemed unlikely that climate change could have caused all horses in all of the Americas to go extinct and yet not in Eurasia and Africa. Likewise, I think that ... [if] a disease infected and wiped out all of

²⁵⁸ Ibid.

²⁵⁹ Ibid.

the horses in America, from Alaska to Tierra del Fuego, then where's the evidence? Where's the physical evidence? That shouldn't be hard to find in fossilized and other remains of horses. There should be an obvious movement of equine death that can be seen in the archeological and geological record ... I'm not saying it's not there, but I have never come across it in anything I have read or any people I've talked to about this. And so, I came to the conclusion that well, Europeans landed in the Americas knowing that horses were power. And so immediately began to take control of horse herds, or the people and/or the people who controlled those herds.”²⁶⁰

Caretaker (*American of Russian and German descent*):

“I don't really think that the horse totally disappeared off this continent, and ... I think the Vikings came a lot sooner and brought horses then. I think there might be a possibility that those horses mixed with the old, old line horses. Same with the Spanish horses. I just don't believe that the [Indigenous horse of the Americas] disappeared.”²⁶¹

Two of the five conclusions provided above indicate that there were periods that the Indigenous Peoples of the Americas “had the horse,” periods when it was not as prevalent or present, and a period when it was “returned to them.” Whether this period “without the horse” is aligned with an “extinction” brought about by the last Ice Age period (between 13,000 and 10,000 years ago), a massive population decline brought about by European-bred disease, or a population shift due to a southern migration of the horse in order to escape colder conditions, is unclear. Likewise, it is unclear whether the period that it was “returned to them” coincides with the Spanish horses arriving in the Americas, as Western academia claims, or a natural migration north as the climate shifted.

However, since more modern data, such as the geographical study published by Russell, *et al.*²⁶² proves that the glacier during the Last Glacial Maximum only covered the northern portion of North America, and that “the Appalachians remained free of glacial ice throughout the Pleistocene time”²⁶³ and so many project participants testified as to the hardiness and strong ability to survive that these horses possess, the theory that the horses migrated as a response to changing conditions rather than becoming extinct, is more likely.

The following excerpt, provided by a project participant (Academic Scholar, Teacher, and Western-Trained Scientist) who has studied muskoxen in the Alaska and Canadian regions for many decades explains the following:

²⁶⁰ Koskey, personal communication, October 18, 2016.

²⁶¹ Kuntz, personal communication, March 30, 2016.

²⁶² Russell, et al., “A Warm Thermal Enclave”

²⁶³ Ibid., 191.

“If you look at horses and more migratory animals... there were refugia ... Areas where special environmental circumstances have enabled a species or a community of species to survive after extinction in other areas. So, the glacier comes down and covers all this habitat, wiping out all these species. But for some reason, these little pockets don’t get covered by the glacier, they are called refugia. They are like islands ... the last Glacial Maximum refugia. And people survived in these places It doesn’t have to be defined by a glacier. It’s basically like island biogeography where you don’t get any flow of genetics extending along a continuum. Especially a species that migrates. You know, if you stop that then the animals will change and adapt. Not quickly, and not always ... There’s a whole ecology surrounding refugia and the evolution behind it.”²⁶⁴

In addition to this, her colleague (Academic Scholar, Western Trained Scientist, and Teacher) who has been a wildlife biologist and paleontologist for decades, explains the “expansion of the glaciers is a really slow process ... it takes thousands and thousands of years ... and the same with the retreat of the glaciers.”²⁶⁵ Therefore, the Indigenous horses of the Americas would have certainly had time to notice the impending environmental shifts, migrate, and find appropriate safe havens, or “refugia.”

As noted above, one participant has had the very unique experience of living in the Veracruz, Mexico area and regularly traveling via horseback through the terrain that the Spanish conquistadors and their horses would have had to traverse to move their animals back and forth between continents. His firsthand account of how arduous this journey is, the length of time it takes, and the dangers that the Spanish would have encountered, is very compelling.

The remaining three participants concluded that the Indigenous horse of the Americas survived the Ice Age. Two cite “intermixing” between Indigenous American horses and imported European horses (such as Spanish and/or Viking) as a likely occurrence, and the third believed that the conquistadors and early explorers were aware of the horse in the Americas, and were intent on controlling it and the Native People with whom they lived.

From the in-depth information project participants provided within these interviews, it is clear that the discrepancies between the dominant Western cultural claims regarding the history of the horse in the Americas have puzzled and confused many people across academic disciplines and professions for long periods of time. Indeed, for many Indigenous Peoples, this version has nothing in common with the traditional knowledge (TK) that was handed down from

²⁶⁴ Dr. Jan Rowell, interview by Yvette Running Horse Collin, at the Large Animal Research Station (LARS) in Fairbanks, Alaska, October 18, 2016.

²⁶⁵ Dr. Pam Groves, interview by Yvette Running Horse Collin, at the University of Alaska Museum of the North in Fairbanks, Alaska, October 17, 2016.

generation to generation for thousands of years. Here, project participants share their observations, experiences, perspectives and opinions regarding this subject and highlight many excellent points that deserve consideration and the attention of Western academia.

Chapter 5

Further Analysis Regarding Native Peoples and the Indigenous Horse of the Americas: Acquisition, Spirituality, Healing, and Husbandry

It is clear from the testimony of project participants in Chapter 4 that the perspective put forth by many Indigenous cultures within the Americas regarding the history of the horse is very different than that offered by the dominant Western culture. In addition, many Western academics and equine experts have highlighted improbabilities within the claim that the horses in the Americas became extinct during the Last Glacial Maximum and were only subsequently introduced to the Native Peoples by the Spanish conquistadors and other European explorers. These early conquistadors and explorers arrived in the Americas with cultural bias, no background with regard to the flora and fauna, and very limited geographical exposure to the North, Central, and South American landmasses. Therefore, if the objective of empirically based Western Academia is in fact to determine the truth, the information provided by Indigenous Peoples should be included in the analysis, as their knowledge regarding the geography of the Americas and its flora and fauna would naturally be more extensive. In this chapter, the contributions of project participants will be interwoven with written records to capture a more accurate picture of the relationship between the horse and Natives Peoples. Origin stories, spirituality, healing, ceremony, and unique animal husbandry techniques surrounding the horse within certain Native Nations will be explored.

5.1 Differences Between Indigenous and Western Academic Historical Perspectives

It is important to note that the perspective of Indigenous cultures varies from that of the dominant Western culture in ways that greatly affect the capturing, retelling, and preservation of what we understand to be “history.” First, the Western culture’s focus on chronology is not shared by many of the Indigenous cultures across the Americas and the world.²⁶⁶ Rather, Indigenous cultures work to preserve the essence of the way in which an event or circumstance affected the Peoples – what it meant to the community at the time and what it can teach them about life and the world – rather than focusing on preserving a timeline. When asked about a

²⁶⁶ Cruikshank, *Reading Voices*, 37.

timeline with regard to the history of the horse and his People, the *Diné*, one project participant (*Indigenous Academic Scholar and Traditional Knowledge Bearer*) responded as follows:

Is putting a historical time on something ... really important? Is it really important to say when the horse was here? ... Who's going to decide it? And even if we do find out, what is it really going to change? Which goes back to my point about, ok so now we found that out, what does it mean to us now? What does the horse mean to us? Our relationship with the horse, but more so [and] deeper, our relationship with the natural processes, the natural world. That's more important because that's the here and now ... Not to say that the past ... is not important.²⁶⁷

Another project participant (*Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher*) addresses the issue of chronology from the *Oglala* Lakota cultural perspective in his interview as follows:

In the case of the horse, in the evenings after we had our meal - and back in those days we didn't have electricity. We used candles or kerosene lamps. It was a time for the Elders to speak about "*Ohunkan Ehoni*." *Ehoni*, the word *Ehoni* in Lakota doesn't have a timeline as we talk about in the English language. Remember the English language is linear and there are times, and there are sequences, and there are endings and the beginnings. In the Lakota language when they say *Ehoni*, it could be 1,000, it could be 10,000, it could be many, many years. So, it's really sometimes very challenging to bring those two things into perspective. Where I'm going with this is, they talked about horse songs, and these horse songs again described it as *Ehoni*, meaning again I just mentioned it could be thousands of years that these songs honoring, respecting, and valuing the horse to a very high, now when I say high, again that's secular. So, when you say "*Sunka canke iyotanghe lila wakan*." So, it's describing a horse in ... [the] language of the soul."²⁶⁸

As Werito has worked with both urban and rural Native and non-Native student populations for more than fifteen years, this contrast in cultural perspectives is an issue that he deals with on a regular basis. In his discussion regarding the way in which Indigenous research methodologies have been historically devalued by Western Academia, he explains the following:

You know, we talk about research in academia. Research, scientific evidence, is all based upon empiricism. And empiricism is really just observations over time. But even the scientific method says that you can't replicate the same study, so then that kind of brings to the question, well then why do you do it that way, right? But the point I'm going to is that scientific method, there's ... a hypothesis and you prove that or disprove it and that's done through tests, observations, and that's empiricism. What you see, what you hear is hopefully objective, but we know it's not; it's subjective. So, what people don't want to

²⁶⁷ Werito, personal communication, August 19, 2016.

²⁶⁸ Braveheart, personal communication, September 10, 2016.

talk about is indigenous history, indigenous stories. There's empirical evidence in that. Meaning that if a person says, "That plant there will restore you back to health," and there's a story behind it. And ... someone else who does not have that way of thinking might say, "Well, whatever." But then the question is, how do you know? "Well, because my grandparents told me, and their grandparents." So, that 200 years of observation and testing, that's evidence; that's research. It just didn't happen in a lab, right? It happened through life experience. We know it's true, but is it valued the same as what Western science does? ²⁶⁹

James Craven's article, titled "The Survival and Sustainability of the Blackfoot Nation and Culture," states the following regarding theoretical physicist F. David Peat's observations after living some time among the Blackfeet Peoples:

From his study of the Blackfoot Culture, with particular reference to the Sun Dance, Professor Peat came to some remarkable conclusions confirmed by other observers. He found for example, in the rituals, allegories, symbolism and values embodied in Blackfoot culture, not only evidence of very advanced "science" and scientific methods, but indeed "science" far in advance of where the Newtonian-based "science" and epistemology of Eurocentric cultures, increasingly under siege, are today. He found for example, concrete notions of key principles and concepts that today make up the versions of Quantum Mechanics "discovered" only in the early 20th century: Superpositionality; Wave/particle duality; Entanglement; Bose-Einstein condensates and mass-energy equivalence, Heisenberg's Uncertainty Principle and the four basic laws of Thermodynamics. ²⁷⁰

Peat's firsthand observations and determinations as referenced by Craven are in direct contrast to arguments published in academic journals, such as *Natural History: The Magazine of the American Museum of Natural History*, in which D. R. Barton states as follows:

In short, primitives often find it extremely difficult to see the relationship of any one act or phenomenon to another. It is a matter of record that some tribes have no single word for "cow" but content themselves with "white cow," "brown cow," etc. Moreover, our familiar Mohicans had a word which meant "cutting wood," but no word at all from just "cutting." Now, these oddities boil down to the plain fact that primitives lacked the capacity for abstract thought. Take the Latin word *equus*. Under this abstract term, zoologists have grouped and classified all the variations and mutations occurring within the whole array of animals who show sufficient measureable likeness to be contained in the horse family. Clearly, primitives who do not perceive the value of inventing a group-

²⁶⁹ Werito, personal communication, August 19, 2016.

²⁷⁰ Craven, "The Survival and Sustainability," <https://www.linkedin.com/pulse/survival-sustainability-blackfoot-nation-culture-james-craven>.

term for a horse family would seemingly find such an intellectual achievement a thousand light years beyond their scope.²⁷¹

However, despite such historical stereotypes and differences in emphasis, some Western Academic researchers and Indigenous traditional knowledge bearers have come together to merge their two “disciplines.” This is being done in an effort to present a more accurate and complete version of history. Although more modern movements are gaining momentum, there were historians who saw the validity of Indigenous oral tradition and history more than 150 years ago. An example of this can be found in Cushman’s book titled *History of the Choctaw, Chickasaw and Natchez Indians*. He states as follows:

An ancient Choctaw tradition attributes the origin of the prairies along the western banks of the Tombigbee River, to some huge animals (mammoth) that existed there at the advent of their ancestors from the west to Mississippi. Their tradition also states that the *Nahulla*, (Supernatural) a race of giant people, also inhabited the same country, with whom their forefathers oft came in hostile contact... That the Choctaw traditions of both the mammoth and great men, was based on truth as to their former existence in the southern and western parts of this continent is satisfactorily established by the many mammoth skeletons of both men and beasts and fragments of huge bones that have been, and are continually being found in different parts of the country, and all of whom, according to their tradition were contemporary with the ancient fathers of the present Indian race. A huge skeleton of one of those ancient animals was found in March 1877, four miles east of the town of Greenville, Hunt County, Texas. I secured a fragment of the skeleton, evidently a part of the femoral bone, which measured twenty-one inches in circumference. A tooth measured three inches in width, five inches in length along the surface of the jaw bone and five inches in depth into the jaw, and weighed the seemingly incredible weight of eleven pounds. The teeth proved the monster herbivorous, the enamel of which was in a perfect state of preservation. The greater part of the frames crumbled to dust, as soon as exposed to the action of the air.²⁷²

More than a century later, the Oregon Department of Geology and Mineral Industries reached out to Indigenous communities in an effort to research prehistoric and historic tsunamis, specifically one of the world’s largest earthquakes, which occurred at 9pm on January 26, 1700 along the west coast of North America. Their website oregongeology.org explains the following about this research in the article titled “Native American Oral Traditions Tell of Tsunamis’ Destruction Hundreds of Years Ago” as they quote an article in the Seattle Post Intelligencer and the Canadian Geological Survey:

²⁷¹ D. R. Barton, “What *Is* in a Name?” *Natural History: The Magazine of the American Museum of Natural History* 43, no. 3 (March 1939): 175.

²⁷² Cushman, *History of the Choctaw*, 149-150.

“These stories [from the Quilleute and Hoh Indians] just bristle with information,” said Ruth Ludwin, a seismologist at the University of Washington. In addition to using the tools of modern science and technology to study earthquakes, Ludwin has spent considerable effort looking into the tribes’ oral histories of these events. ... “When I first started looking into the tribal histories, I was looking for statements that said something like ‘the ground shook’ or ‘the land slid’ or that sort of thing, direct descriptions,” Ludwin said. But this isn’t the way the tribes described things, she said. Major, traumatic events were described in the rich tradition of tribal mythology... “It’s not trivial information,” Ludwin said. Once you dig deep enough and begin to understand the patterns and symbols conveyed by the words and sentence structures, she said, an astonishing amount of descriptive data begins to emerge.²⁷³

Scientists around the globe researching climate change have also learned the value of Indigenous history and traditions when an Indigenous Alaskan “legend” regarding a year without a summer, proved a valuable resource for them. The report by Daniel Grossman titled “Eskimo Climate Disaster Branches Out” as published in BBC World Service explains as follows:

One year, in Alaska, the summer never came, a tribe of Eskimos nearly died out and a creation myth was born. Stories of “the summer that wasn’t” have been passed from one Eskimo generation to another ... Gordon Jacoby is a leading dendrochronologist at Columbia University’s Lamont Doherty Earth Observatory. He studies climate change by counting and measuring tree rings ... Whilst working with archeologists, Karen and Bill Workman of Anchorage, Alaska, Jacoby learned of the *Kauwerak* legend. He had collected tree stumps from around the world and from his tree ring studied, he knew of an abnormally cold summer. “I knew this year 1783 because we’d worked on it also. Some earlier dendrochronologists had noted this was a very unusual ring in the Alaska – northern Alaska – series. They just noticed it visibly, whereas we had actually done what they call density measurements of this particular ring.”²⁷⁴

Another example of Western trained researchers/scientists and Indigenous knowledge bearers and communities working together to capture a more complete picture of history within a particular geographic area is occurring in the Yakutat Bay in Alaska. A partnership between the Yakutat community, the Smithsonian’s Arctic Studies Center, and the National Science Foundation is “rediscovering this unique history [of the Yakutat Seal camps] by integrating oral tradition, indigenous knowledge, archeology, geology, and environmental science.”²⁷⁵ Dr. Aron

²⁷³ Oregon Department of Geology and Mineral Industries, “Native American Oral Traditions Tell of Tsunamis’ Destruction Hundreds of Years Ago,” accessed January 22, 2017, <http://www.oregongeology.org/sub/earthquakes/oraltraditions.htm>.

²⁷⁴ Daniel Grossman, “Eskimo Climate Disaster Branches Out,” *BBC World Service*, February 8, 2001, http://www.bbc.co.uk/worldservice/sci_tech/highlights/010208_eskimo.shtml.

²⁷⁵ “Yakutat Seal Camps.” Smithsonian National Museum of Natural History. 2017. <https://naturalhistory.si.edu/arctic/html/Yakutat-seal-camps/YSCvideos.html#>

Crowell, an archeologist from the Smithsonian Institution, explains the following regarding this research project:

We had a small grant from National Science Foundation to demonstrate, if possible, that these camps still existed as archeological sites, and that we could tie archeological information to the oral traditions and historical photos. And we were able to do that; and we are not done yet (min 4:47 to 6:20, *The Glacier's Eternal Gift*).²⁷⁶

5.2 Origins Signify a Spiritual Relationship

When asked about the origins of the horse, many of the project participants told their People's history regarding the acquisition of the horse from a spiritual perspective. This contrasts markedly with the way in which Western Academic documents and records approach this topic. Whereas modern-day books on horses and Native Peoples credit the Pueblo Revolt, which occurred in New Mexico in 1680 with the event that brought horses to the North American Native Peoples,²⁷⁷ the Indigenous Peoples who were interviewed for this project did not cite that date or event when detailing the acquisition of the horse for their Peoples.

John S. Hockensmith recounts his view of the history of the Apaches and their relationship with the horse. As stated in Chapter 2 of this dissertation, his references and the conclusions he draws from them are often contradictory. For example, he references that "Apaches were never 'horse Indians,' and always readily abandoned their stock to follow the mountains on foot" and that "they ate horses, mules, cattle and sheep alike."²⁷⁸ However, on that same page he goes on to state that "Apache myths make it clear that they regarded horses as infused with supernatural powers"²⁷⁹ and that they believed that "these animals came as gifts from their gods, who guarded them long before bestowing them on man for his use."²⁸⁰

One project participant (*Academic Scholar, Teacher, and Traditional Knowledge Bearer*) from the *Diné*, or Navajo Nation, explained the following when asked if Western academic historians had ever confused his Peoples with other Native Peoples in their accounts, such as the Apache. He replied as follows:

²⁷⁶ Ibid.

²⁷⁷ Hockensmith, *Spanish Mustangs*, 45.

²⁷⁸ Ibid., 50

²⁷⁹ Ibid.

²⁸⁰ Ibid.

Oh, certainly ... I mean, even today, people say Navajo Nation, *Diné* Nation, but you have to ask yourself, “Who defined that, right?” Because when you go to the People, they don’t say, “I’m *Diné*.” They ... introduce [themselves] through [their] Clans, but for me I’m more “That’s who I am, I’m *Taneeshahnii*. I’m of that Clan. I’m born from this ...” But even more so I’m of that Clan group from this area. But, to go further ... if we go back in time, just really looking at the world historical accounts, the oral accounts, the stories, at what point, you wonder, did Navajo become different from Apache? Because, you know, I’ve heard Elders say, they always talk about “*Diné, Diné*.” They’ll say, “*Diné nidli*.” Or even our clan names like, “*Naakai Dine’e*.” That name is in there. And so, they will refer to it that they are people of the, like the south, that went south, but that were *Diné* at some point. But because then you know, like boundaries and territories and everything coming up around them, then people kind of got divided. So, obviously then that, brings up your question that when the Spaniards came by they asked the Pueblos, “Who are these people?” And so, they were all referred to as Apaches and Navajo. At some point then they realized, “Wait a minute, Apaches are different than the Navajos.”
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With this information, conflicting statements, such as the ones given by Hockensmith above, begin to make more sense. As we continue to explore some of the *Diné* accounts of the acquisition of the horse, it is clear that their history and perspective aligns almost exactly with the latter statement, rather than the first. In the article titled “The Creation of the Horse,” Harry Goldtooth retells the story of the creation of the horse as told to him by his father, Frank Goldtooth.²⁸² (For the full story, see Appendix A.) This publication was generated as an internal educational tool to teach the *Diné* youth about cultural and traditional topics of import. Nowhere in this story are the Spanish conquistadors and their horses mentioned. Indeed, Goldtooth states that the people of the Earth were gifted these horses from the Holy People once they had learned how to respectfully ask and care for the horses.

The acquisition of the horse for the *Diné* People is also addressed in the article by Peter Iverson titled “The Sacred Gift: Acquiring Horses Empowered the Navajo People.” He explains as follows:

The horse plays an important role in Navajo culture – from the sacred myth of the first blue horse to the animal’s helping them to live better on their land to its practical and recreational uses of modern times. According to the Navajo tradition, horses entered their

²⁸¹ Werito, personal communication, August 19, 2016.

²⁸² Goldtooth, Harry. “The Creation of the Horse.” *Leading the Way: The Wisdom of the Navajo People* 13, no. 11 (November 2015): 2-7.

world not through European intervention but through initiative of the Diné, or “the people.”²⁸³

After detailing the creation story where Changing Woman gave birth to Twins who were fathered by the Sun Bearer, the deity who carries the Sun through the sky each day, Iverson continues to describe what the Twins received after a long journey:

From the Sun Bearer and other powers, the twins received special medicine, songs and prayers for the horses. “Before me peaceful,” the words from one ceremony declare. “Behind me peaceful.” Under me peaceful. All around me peaceful. Peaceful voice when he neighs. I am everlasting and powerful. I stand for my horse.”²⁸⁴

The spiritual nature and purpose of the horse for the *Diné* People is confirmed by Werito during his August 19, 2016 interview. He explains:

In one other story an Elder shared with me, he said that the Holy People, when they emerged into this world, [the] Fourth World, they put two horses side by side. One was a white horse and one was a blue horse. One was to represent white shell and blue shell. And how they embodied the horses with power, and they then let the horses loose. As they did that the horses ran across the night sky, and that’s what we see in their path. What they left behind was the Milky Way that we see as the sky, the Heaven’s above. And so ... you start getting into deeper discussions, or there’s deeper knowledge involved there ... related to Star Knowledge. You know, stories about the Heavens, how the stars came to be, how they were placed, but also what do they mean? And so, it ... became very clear to me ... that we were really talking about the horse on ... a spiritual level.²⁸⁵

Although the idea of a People “emerging into this world” may sound fanciful from a Western cultural perspective, as the Western-trained researchers who are working on projects that merge Western science and traditional knowledge have learned, there is more to “oral history” or “creation stories” than meets the eye. Vine Deloria, Jr. provides an interpretation of such “emergence stories” that deserves consideration. He describes this in his book titled *God Is Red* as follows:

The Pawnees and Arickara also speak of an ancient people emerging from the darkness into a lighted world. The pueblos are led by Mother Corn [plant life] into the new world of light from the world of darkness. The Mandans climb a vine rope from the underground until a large woman proves to be too heavy for the rope and it breaks it, leaving some of the people remaining under the earth. Other tribes have had variations of this general theme of emerging from the underground, where they had survived a great

²⁸³ Peter Iverson, “The Sacred Gift: Acquiring Horses Empowered the Navajo People,” *Arizona Highways* (February 2001): 7.

²⁸⁴ Ibid., 9.

²⁸⁵ Werito, personal communication, August 19, 2016.

catastrophe or at least begun their existence in this present world as a people. There would appear no good reason for a number of tribes to share this story, unless there was some event behind it, even though the event was very dimly recalled in tribal memory. Perhaps the disaster of which the Near East spoke did not affect the peoples of North America, who had prepared an underground shelter for themselves in anticipation of the event. At the least we can suggest that some common experience must be shared by some of the tribes, as emergence legends among other peoples of the globe appear to be rather sparse.²⁸⁶

In Iverson's account detailed above regarding the *Diné* Peoples, he refers to a song and ceremony that the Twins were given as they acquired the horse from the Holy Beings. Werito also addresses such songs and the spiritual teachings they offer. Again, this contrast between what the Western culture aims to "capture" with regard to recording history and what the Indigenous cultures aim to preserve is evident. He explains:

But what is interesting about those songs is that they describe the horse in terms of what they symbolized. In terms of, like, for example: its hoof prints are white shell, shell, abalone shell, the hair is rain, right? The eyes are stars and so forth. So, when you hear the songs, that's what they are singing. But, I think you go deeper, deeper into understanding that, you realize that those are natural elements. The earth, the sky, even human beings, we are the earth and the sky. And those are the natural elements of life that came to be to create this thing, or this being ... And so, as you then think about that, you realize then, going back to what I said about how the horse was sung into existence, and how it was created by associating its hooves, its hair, its eyes, its ears to different natural things. There's a really deeper understanding there. So, going back to the point about you know, our people said that the horse was here. That's what they were talking about, I think. That the horse has always been here. Because the world, the life that we see, the energy, the life energy, the life force, has always been here ... but I think in Western science, the Western thinking, there always has to be like this concrete evidence. There has to be "a date," and I think it's very contradictory to Indigenous ways of thinking that maybe it's not really the question."²⁸⁷

It is rare that an Indigenous story regarding the acquisition of the horse is corroborated or acknowledged by Western historians. In this case, a program participant (*Academic Scholar, Caretaker, and Teacher*) from the *Métis* and *Ojibwe* Nations shared some traditional knowledge, which was validated by previous Western research. She states:

I was speaking to a traditional Elder the other day, and she indicated to me that horses came from the West. She stated that this was traditional knowledge that was passed down to her from her ancestors. She explained they came to Indigenous peoples from the

²⁸⁶ Vine Deloria Jr., *God Is Red*, 3rd ed. (Golden, CO: Fulcrum, 2003), 141.

²⁸⁷ Werito, personal communication, August 19, 2016.

West with the rain. When I further inquired about this, she specifically indicated to me that they came out of the ocean, rose from it. She said that horses came to the Indigenous peoples as a gift from the Creator to help the Indigenous with their hardships and to “doctor” them. This story coincides with other traditional knowledge ... given to me by traditional Elders from various Nations in fragments during my learning journey and directly contradicts the dominant colonial history of how the horse came to this land [i.e., from the East with Europeans].²⁸⁸

This version of the origin of the horse is corroborated by the research performed by John Canfield Ewers with regard to the Blackfoot Nation. He states the following:

Since Blackfoot horse acquisition preceded first white contacts with these three tribes, we must rely rather heavily upon an evaluation of traditional data in determining the source of their horses. Wissler heard Blackfoot traditions to the effect that their first horses were received from the Shoshoni and Flathead.²⁸⁹ One tradition told me stated that a Blackfoot, Shaved Head by name, went west and obtained the first horses known to his people from the Nez Percé, who told him that they had taken them out of the water.²⁹⁰

The claim of the Nez Percé having horses early on and supplying other Native Peoples with them is confirmed in other sources. William Berg’s work recounts the statements found in his father’s volumes of the *Original Journals of the Lewis and Clark Expedition*. He states as follows:

I noticed, too, that the Mandans, who had a few horses, said that they had obtained their first horses from the Crows, and that, in response to inquiry, they told Captain Clark that the “Pierced Nose Indians” on the other side of the mountains had plenty of horses.²⁹¹

Indeed, Ewers collected three “beliefs regarding the origin of the horse” from Piegan Elders in Montana in the 1940s.²⁹² To view these in their entirety see Appendix B, C, and D. If we are going to carry forward Deloria, Jr.’s²⁹³ teaching that oral history references real events, such as natural disasters, which occurred in ancient times and the Peoples’ perceptions and experiences around those events, it is interesting to note that two of these three accounts from Blackfeet Elders claim that the horses “came out of the water.”²⁹⁴ In the case of the instances

²⁸⁸ Anonymous, personal communication, March 31, 2016.

²⁸⁹ Clark Wissler, “Material Culture of the Blackfoot Indians,” *American Museum of Natural History*, Anthropology Pap., vol. 5, pt. 1., 19, **quoted in** John Canfield Ewers, *The Horse in Blackfoot Indian Culture: With Comparative Material from Other Western Tribes* (Washington, D.C.: Smithsonian Institution Press, 1980).

²⁹⁰ Ewers, *The Horse in Blackfoot*, 18.

²⁹¹ Berg, *Mysterious Horses*, 182.

²⁹² Ewers, *The Horse in Blackfoot*, 291-297.

²⁹³ Deloria, Jr., *God Is Red*

²⁹⁴ Ewers, *The Horse in Blackfoot*, 294-296.

cited in Ewers' work, these horses emerged from large lakes, while in the account relayed from our project participant, the horses came "out of the ocean." The Blackfoot Nations today are known as Blackfoot/*Siksika*, Blood/*Kanai*, *Pikuni/Peigan*, and the North *Peigan Pikinu*.

Regarding the territory that they covered, Ewers explains:

At its largest extent, prior to the first Blackfoot treaty with the United States Government in 1855, the territory of the three Blackfoot tribes extended from the North Saskatchewan River in Canada southward to the present Yellowstone National park. The Rocky Mountains formed its western boundary. The mouth of Milk River, some 300 miles eastward, marked its easternmost limit.²⁹⁵

As the Blackfoot Confederacy today includes three First Nation bands in the Canadian provinces of Saskatchewan, Alberta, and British Columbia, and one in the Montana area of the United States and it included more of this before First Contact with European explorers, it is possible that each of these horse acquisition stories is accurate. Indeed, even Western-trained historians have been puzzled regarding the origins of the Nez Percé horses and their sophisticated horse culture, as it does not "match" with the predominant theory. However, such historians still manage to attribute a fairly modern European origin to their horses even though this is not supported by traditional knowledge or recorded Western historical accounts. For example, Frank Gilbert Roe agrees with Francis Haines' argument that as a breed the Appaloosa was different than the Spanish horses. They hypothesized that it was "developed in the Orient, and reached the Spanish Netherlands from the Near East by the ordinary channels of Mediterranean Sea-traffic" and that it was "brought direct from the Netherlands to Mexico, and was never in North Africa or Spain."²⁹⁶

Whether these creatures appeared to a dying man in need, as Soop recounted in his June 24, 2016 interview, emerged from the waters, or came out of a high place in the clouds (as referenced in Appendix's B, C, and D), it is clear that these Indigenous Peoples understood the acquisition of the horse to have been the result of a spiritual event. Therefore, it was perceived and treated as a powerful gift for the entire community. As Soop (*Caretaker, Teacher, and Traditional Knowledge Bearer*) of the *Kainai or Blood First Nation* explains in his interview:

They say that the horse was a gift from God because it is Spirit. We look at the horse not as an animal, but as a spiritual being. And that spiritual being came to us when we needed

²⁹⁵ Ibid., 121.

²⁹⁶ Roe, *The Indian and the Horse*, 255.

it. I think it came to us when we needed it to protect ourselves from other warring tribes, but really the settlers; invasion. We needed that horse.²⁹⁷

In the book titled *A Cheyenne Voice: The Complete John Stands in Timber Interviews* by John Stands in Timber of the Cheyenne Peoples and Margot Liberty, Stands in Timber also shares a horse acquisition story. He explains that his people knew that the horse could be ridden because of a prophecy handed down to them by their prophet, Sweet Medicine, rather than because they watched Spanish people riding horses and copied them. He also distinguishes between “Indian ponies” and “white man’s horses.” Stands in Timber states the following about the horses in the area now known as Wyoming:

The first man ever seen a horse, he saw the animals come in down to a lake, and they came back out and he went down closer. And then he thought, when he came back to the village, he told the old Indians: we remember what the old Indians have told, the prophecy of Sweet Medicine, that there would be animals with round hoofs, and a shaggy mane, and tail, that we could ride on its back to that blue vision there is a short time. I saw that animal. So they made a move across over there, they did find it. They came to the same place and caught the first one by using a snare; the horse stepped into it and was caught then. And when he started to run off, they came to him and tied him down, and got rawhide on him, and all hung on, and got him broke that way. The idea was that the prophecy had been they would ride him on the back; after they tamed him up so tame that he would follow a person, they rode on his back and used him to find others. They call that river than comes in and empties into North Platte, Horse River or Horse Creek; that was where 1851 treaty was signed by the Indians and the United States. It was a long time before they caught others; they tame them the same way, tying them with rawhide. And they caught small ones and they got gentle, and then they would ride and use them, and after they got so many tamed up, the other tribes like Apaches kept coming back – they were one of the first tribes with the Cheyennes ... First they thought – there was a question – there was the first white man they seen up further south, a darker color than these ones from the east with light skins, so he must be the Spanish. The Southern Cheyennes and all the tribes fought the Spanish. And they did mention the difference in color of the people, and they found more horses there than up here. When the white man came, they brought bigger horses; most of the ones which they caught were small. They called them Indian ponies. The big horses they called white man’s horses.²⁹⁸

In addition to these horse acquisition accounts, the Choctaw Peoples have an account which today has been translated into English as “The Tale of the Wind Horse.” (The full story of the Wind Horse can be viewed in Appendix F). This story addresses both the acquisition of the horse for the Choctaw Peoples as well as details the way in which the horse would serve to help

²⁹⁷ Soop, personal communication, June 24, 2016.

²⁹⁸ John Stands in Timber and Margot Liberty. *A Cheyenne Voice: The Complete John Stands in Timber Interviews*. (Norman: University of Oklahoma Press, 2013), 74.

the Choctaw Peoples to spiritually find their way “home” to the next world. In this account, a wild horse comes to a young boy who was suffering from a fatal injury. During this time of great need, this horse appears and merges with the boy spiritually to take him to a place of complete renewal and healing. It has been documented that the horse was considered so important to the Choctaw Peoples, that they buried the deceased with their horses “so that they would have something to ride in the afterlife.” ²⁹⁹ Indeed, as this story shows, the horse would also serve to help those who were frightened to make a safe transition from this world into the afterlife. An excerpt of “The Tale of the Wind Horse” as relayed by Pinti is as follows:

“... Wind Horse knew that the wound that the Boy had was one that could not be fixed or healed. He was taking the boy to the place of the Indian Hunting Ground. This place was where all were made whole and had no fear or need. Wind Horse felt sadness that one as young as this Boy had to go to the Ground ... As they traveled, the Boy noticed that the trail was always changing. First it was as it was when the Boy had been hurt, then it was as it was when he had been happy. Then it was the time when he had not been born. Soon he saw things that he did not recognize... Wind Horse turned his head and nuzzled the Boy’s head. He began to slow, for the end of the journey was near. The Boy looked up and saw the home of those who had gone before ... the Boy realized that he had two good legs and that all of his wounds, hunger, need and hurt, were gone.” ³⁰⁰

5.3 Horse Healing, Horse Medicine, and Ceremonies

As the horse was considered to have been a gift from the Creator and held a deep spiritual significance for many Indigenous Peoples throughout the Americas, many ceremonies and healing methodologies and methods surrounding the horse were developed and cultivated. These included those that benefited human beings, horses, nature, the Earth, and even those who had passed from flesh. As Indigenous Peoples, overall, view health holistically, the mind, body, and soul needed to be addressed in order to achieve balance and true wellness. Innocent Okozi, Andrea Zainab Nael and Maria Cristina Cruza-Guet describe this perspective of health in their paper titled “Promoting the Wellbeing of Indigenous People in Mental Health and Education” as follows:

²⁹⁹ Carson, “Horses and the Economy,” 504.

³⁰⁰ Pinti, “The Tale of the Wind Horse,” <http://mike-boucher.com/wordpress/?pageid=236>.

American Indians and Alaskan Natives, as many other indigenous peoples throughout the world, understand ‘wellness’ holistically, that is, in terms of a combination of physical, mental, emotional, and spiritual elements.^{301 302 303}

Kawagley explains the worldview of his People in the following manner: “The original Yupiaq based their philosophy and life-ways on maintaining and sustaining a balance among the human, natural, and spiritual worlds.”³⁰⁴ Therefore, in order to understand horse healing, medicine, and ceremony from an Indigenous perspective, it is important to understand this concept of “total wellness.” This is very different than the more compartmentalized, dominant Western culture perspective on healing, which often attempts to treat each symptom as separate and unrelated.

Stands in Timber and Liberty relay the following about a horse worship ceremony and horse medicine. They explain as follows:

The first they caught was a blue-colored horse, and the next was buckskin, both caught by these southern people; and there was something about that horse, and that’s how they start this horse worship. The members of that clan they call Horse Men, and the Apaches got that medicine called horse medicine, they claim they got from the Shrine Mountain, or Bear Butte. The Sioux called it “Butte,” the *Cheyennes*, “Medicine Mountain,” or “Holy Mountain,” because that was where Sweet Medicine obtained the Arrows ... This came from Apaches; they originated this ceremony. The *Cheyennes* mention that they and the Apaches were together one time, and the *Cheyennes* joined to go through that ceremony and became a member of that lodge. They called it *na a mo*, horse men. That’s the way they called it. A lot of things, there’s no word to compare the exact meaning with English, like I told you what they call that white man – they don’t say white man, but their prophet Sweet Medicine said there will be strangers, and he called them earth men. They come to find out, they tore up the ground and raise a living from the earth, and strangers come from another country ... one time the horse men had the worship – the way they do when they come together and fast, and worship. They come together and put

³⁰¹ V. Patel, “Spiritual Distress: An Indigenous Model of Nonpsychotic Mental Illness in Primary Care in Harare, Zimbabwe.” *Acta Psychiatr Scand*, 92, 1995, 103-107 **quoted in** Innocent F. Okozi, Andrea Zainab Nael, and Maria Cristina Cruza-Guet, “Promoting the Wellbeing of Indigenous People in Mental Health and Education,” Special Section - Indigenous Peoples: Promoting Psychological Healing and Well-Being (August 8, 2010): 9. <https://www.apa.org/pi/oema/resources/communique/2010/08/august-special.pdf>.

³⁰² B. Rice, “Articulating Aboriginal Paradigms: Implications for Aboriginal Social Work Practice,” *Native Social Work Journal*, 5, (2003), 87-97., **quoted in** Innocent F. Okozi, Andrea Zainab Nael, and Maria Cristina Cruza-Guet, “Promoting the Wellbeing of Indigenous People in Mental Health and Education,” Special Section - Indigenous Peoples: Promoting Psychological Healing and Well-Being (August 8, 2010): 9. <https://www.apa.org/pi/oema/resources/communique/2010/08/august-special.pdf>.

³⁰³ Innocent F. Okozi, Andrea Zainab Nael, and Maria Cristina Cruza-Guet, “Promoting the Wellbeing of Indigenous People in Mental Health and Education,” Special Section - Indigenous Peoples: Promoting Psychological Healing and Well-Being (August 8, 2010): 9. <https://www.apa.org/pi/oema/resources/communique/2010/08/august-special.pdf>.

³⁰⁴ Kawagley, *A Yupiaq Worldview*, 13.

up a big tepee and had a lot of food, and they sang these horse medicine songs – there were some words in these songs, mentioned about something like a horse. And that buckskin or blue horse that was the first horse obtained by the Indians.³⁰⁵

Braveheart (*Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher*) relays a description of one such *Oglala* Lakota “horse ceremony” in his interview, as quoted below:

They used to have a ceremony. I don’t see them anymore, but they used to have a ceremony we call ‘*Anpo natan*.’ “*Anpo*” means before the sun comes up, and “*Natan*” means “to move to be.” Because “to be” and “motion” are synonymous. There’s no difference; that’s ancient. So, what does “*Anpo Natan*,” mean? It means acting out a ritual with the light. So, I don’t think there is a logical answer to that. That has to be mystical. I’ve always questioned that because in the morning before the sun comes up we go and camp and do many prayers and songs in and around how this early morning charge [is] going to take place. And I heard some of my grandparents say, “*Wan eya. Hehanighe*” so that’s a mystery. They would participate in a sacred light. So, what they would do before the sun comes up, is each family had a horse and a rider and they would prepare the horse. They would paint their particular symbols. Some are shared, the circle. And it’s interesting that if you look at the history with the Hebrew, the Persians, the Greeks and the Egyptians and the Babylonians, and if you look at some of the petroglyphs with the Cro-Magnon and the Neanderthal, that circle is the same. It means, “God is a circle and He is in the center.” And so, they paint it around that eye. What does that mean? They had a profound knowing of the most sacred things that is from the beginning. It’s a primordial understanding. So, when I said the center is everywhere and the circumference is nowhere. That’s the same principle around the eye. They also put a hand. There is a constellation that Natives have. It’s not the Greeks, but it’s a hand. And the way I was told it was the hand is an extension of our soul. So, whenever we touch someone like this. So, are they saying that when we touch the horse and putting the symbol on there we are one with the horse? Absolutely, so that’s one symbol. But they also put other symbols on there that the family may have. It’s almost similar to the Sundance ... And so, when the sun just starts to come up, they mount the horse. And the horse, that’s where I saw the horse dance. They sang the songs and the horses [danced]. They are reenacting the horse dance now, but that was the horse dance that I saw.³⁰⁶

Indeed, Black Elk, a Lakota Holy Man who was born in the 1860s, describes the way in which the spiritual essence of the horse came to him in a vision and helped to heal him from his fear. Black Elk’s horse dance involved “four black horses to represent the west; four white horses for the north; four sorrels for the east; four buckskins for the south ... and a bay horse for

³⁰⁵ Stands in Timber and Liberty, *A Cheyenne Voice*, 74-75.

³⁰⁶ Braveheart, personal communication, September 10, 2016.

[Black Elk] to ride, as in [his] vision.”³⁰⁷ John G. Neihardt describes the way in which Black Elk’s vision was interpreted within *Black Elk Speaks: Being the Life Story of a Holy Man of the Oglala Sioux*:

I was so afraid of being afraid of everything that I told him about my vision, and when I was through he looked long at me and said: “Ah-h-h-h!,” meaning that he was much surprised. Then he said to me: “Nephew, I know now what the trouble is! You must do what the bay horse in your vision wanted you to do. You must do your duty and perform this vision for your people upon earth. You must have the horse dance first for the people to see. Then the fear will leave you ... So we began to get ready for the horse dance.”³⁰⁸

Another example of the use of the horse in traditional Native American healing ceremonies is detailed in Vine Deloria, Jr.’s book titled *The World We Used to Live In: Remembering the Powers of the Medicine Men*:

A horse, which had flannel tied around his neck and calico and feathers around his mane, was tied to the pole. Paint was put on, beginning from his mane and passing down the entire back, and the top of his nose was reddened ... After several songs, the performer walked to the horse, untied him, and brought the rope to the lodge (tipi)... the shaman unpinned the front of the lodge, so that the horse could enter. At the next intonation of the song, the horse walked into the lodge and began smelling the sick man ... Whenever the horse took a breath, smoke of various colors – blue, red, black – issued from his mouth ... The horse walked out to the pole and stood facing the lodge entrance. The patient suddenly felt like rising...³⁰⁹

In the past, it was not uncommon for horses to enter the tipis and/or stay the night in the tipis with their human companions when healing work or spiritual preparation for ceremony or battle was taking place. According to some sources, even the standard tipi size changed over time for some Nations in order to accommodate this. “Originally, [some] tipis were roughly twelve feet high, but when [certain] Native American [Peoples] acquired horses, they doubled the height in order to fit the horses.”³¹⁰

Soop (*Caretaker, Teacher, and Traditional Knowledge Bearer*) is from the Kainia or Blood First Nation. Today he serves his community as an equine therapist. Like his ancestors of

³⁰⁷ John G. Neihardt, *Black Elk Speaks: Being the Life Story of a Holy Man of the Oglala Sioux* (Lincoln: University of Nebraska Press, 1961), 125.

³⁰⁸ Ibid., 123.

³⁰⁹ Vine Deloria, Jr. *The World We Used to Live In: Remembering the Powers of the Medicine Man* (Golden, CO: Fulcrum, 2006), 65-66.

³¹⁰ “Structures of the Plains Indians,” accessed January 29, 2017, <http://people.ucls.uchicago.edu/~snekros/2007-8%20webquests/Structures%2089/structures89.html>.

the past, he credits the horse with having great healing powers and understands them as spiritual beings, not livestock. He states that he always begins his sessions by reminding people that they, as well as the horses, have a spiritual essence. He explains as follows:

... When I do my equine therapy I always start that off because I want people to know that they are spirits. They are not human beings ... They're light. They're energy. But as that spirit you could also be dark ... And I'm a spirit, I'm a light spirit now. But there was a time I was dark, and those times are gone. And it's the horse that brought me back to the light. I never used to believe in anything before, even though my Elders told me. And maybe that was because I was a U.S. Marine ... I've got no skills from the Marines. The only thing they trained me to do was to hate and to kill. Hate and kill. That's all I learned in the Marines. So, when they let me out, that's what I was. I hated everybody and I wanted to kill. And I had Post Traumatic Stress Disorder. And it still comes back to me once in a while, where I will come in and I still have these thoughts of wanting to kill. What takes it away is the horse. And I never believed anything. I thought, when I die that's it, black out. So, I'm going to live the way, and I'm going to do some damage while I'm here on earth. Well, one day ... I picked a fight with the wrong guy. He had nine friends. Me being a Marine, I really in my mind thought I could beat all ten of them up. So, I went outside and I fought them. They killed me. I died. They said I died for a minute and a half. They revived me. I had 110 stitches to my head and face. They severed my main artery, and in that time of death, I seen my body, laying there. And I was holding onto this tree for dear life. I didn't want to leave that tree because I felt, "If I let go of this tree, I'm gone." And everything around me was dark and black. And I was scared. And I thought, "Where am I going?" And all of a sudden I woke up and they were sewing my ear back up, I was in the emergency room. And I thought, "Was that a dream?" And they said, "You died." But in that dream, within that time of death, they put me in a CAT scan to see if I had brain damage or a skull fracture. I didn't. But they found a tumor in me. Cancer; I had cancer. And they said it's the kind of cancer you have [that] by the time you feel discomfort, you would have died. So, my oncologist said ... God works in mysterious ways because you would have died if you started feeling it, and it's a good thing you were beat up. That time being beat up changed my world. I wasn't that person anymore, that dark person, but I still had those suicidal, homicidal thoughts. What saved me was the horse. It helped me become who I am now as an equine therapist ... So, ... what I did after that was I really explored the light of the horse because they were coming to me, and they were calling me to them for my healing ... My horses saved me. So, long story short, that's why I became an equine therapist. Because I was the extreme, and if it could work for me, I know it could work for anybody else.³¹¹

The examples of healing that Soop has experienced extend from the psychological, emotional, and spiritual realms into the physical. He shares the following two examples:

I was diagnosed with chronic obstructive pulmonary disease. COPD I think they call it. And I was always, always coughing. I mean, it was just non-stop. And everyone would

³¹¹ Soop, personal communication, June 24, 2016.

[say I] really need to get it checked ... I was diagnosed with COPD. So, ... I have this 20-year-old horse who just loves me ... And you can tell he does. Even the way he looks at me, with his ears up when he sees me and he's always just happy to greet me. One day, I just stopped coughing. And I was going, "Wow, I haven't coughed for days." All of a sudden at the barn my horse was just coughing and wheezing, so I called the vet and she diagnosed my horse with COPD. Which, there's no cure for it. So, he's got it. He took it from me. And I was telling you about my knees. I've got ACL in one knee. In this right knee. It's all ripped the cartilage. It's damaged. And I was really sore one day on my right knee. I could barely walk. I was just limping around. I had to use a cane actually ... I was putting my hands on my horse. I don't know why. I was just putting my hands on my horse and I was closing my eyes. And then, I got on him, and all of a sudden he was limping on his right knee. And I had to get off because I am a roper. I couldn't rope with him that night. My pain was gone. And he took it. He was limping, for two days he was limping. Third day he was fine. He took it away. So, these horses take away ailments that you have if they love you. If they love you, they will do that.³¹²

Another example of the emotional and physical healing that is possible with horses was offered by a project participant (*Caretaker*) who self-identifies as being of Choctaw and Cherokee descent. She shared the following regarding her battles with cancer:

My first experience ... was in 1996. I had breast cancer and I had worked with the colts, at halter breaking and helping Bryant with them and just knew their personality. You just have to get close to the horse to learn them. I would just sit out on a bucket, and they would come to me. And so, when I would have a bad day, I'd go sit out in the pasture and the horses would come up around me. And the colts would get where they would come up, and I would just sit there and they would visit with me all day long. And you could talk to them, you could cry, and you could do whatever you wanted to. I believe the horses have helped me. I've had breast cancer again the second time, and you just don't know how much. Having just a spiritual relationship with the horses, and they don't talk back or tell you how you should feel and how you shouldn't feel. And they knew then that I wasn't going to do anything to hurt them. I still have that relationship with them now. Going out, taking pictures, just walk out amongst them ... They learn to respect you too. But you walk up, and get up, and you can start petting on them. And then when you go out there they will just come up to you saying, "Hey talk to me today." I don't say much to them, but I feel like that's what's kept me going.³¹³

Afraid of Bear-Cook (*traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher*) of the *Oglala Lakota* Peoples also credits the horse with having great healing powers. She is the granddaughter of George Sword, a society leader who was known to have come back to life after three days with the help of prayers from his People and horse medicine. She states:

³¹² Ibid.

³¹³ Darlene Rickman, interview by Yvette Running Horse Collin, in Soper, Oklahoma, May 29, 2016.

... my grandfather was killed when they were stealing horses ... And so, because he was one of the leaders, society leaders, his cousins threw him on a horse and told the horse, "Take him home." ... The Bear Medicine Society Leaders would follow a few days behind them when they go on those kind of, I don't know if you call it hunts, or like an event. They have to have their horse getting events ... They have to take their Medicine People because you never know what's going to happen So, they brought him back for three days, and when they laid him down and the Bear Medicine People came, they laid him down and they start working on him. And when they took him in they said the sun was just coming up. They worked on him; put medicine in him, tried to work with him. They did breath work, they did prayers, they did ... smudge. Whatever materials they were using, all day long that went on. They didn't stop for a minute. And just as the sun was going down, he opened his eyes. And when he opened his eyes, he had no fear in his eyes. And so, from that, the Society named him. The scariest thing back then was like grizzly bears or bears, so that's what they named him. That "Even the Bears are Afraid of this Man." And he had no fear, and from that point on, my family always tells us, "Be very thankful for life because we come from a man who was dead for three days." And they brought him back and there was a purpose for him to come back, and he came back. His people were crying for him and he came back. And what was he supposed to do? He was supposed to do medicine work.³¹⁴

Afraid of Bear-Cook goes further to explain that there was a specific type of "medicine" used to help her grandfather rise from the dead. Below, she refers to what people call the "chessnut," "chestnut," or "night eye," a callosity on the body of an equine. These are described as appearing "on the front legs of a horse above the knee, or on the back legs of a horse below the hock."³¹⁵ She explains:

They said it's their medicine, and so when a horse dies you take that and keep it. You have to dry it and work with it so that it stays "alive." I guess alive would probably not be the right word but they said it really smells bad. And so, you have to work it so that that smell is not so bad. But it gives you the medicine for you to do your medicine work. And the way they told us about it is that they took that and they put it on the back of my grandpa's head right here and they worked with him on it. And so, when he woke up and he wasn't afraid anymore, he always kept that in his "*Wok phun*." "*Wok phun*" being his sacred bag, it's kind of a literal translation I am giving you because I don't know how you would translate it [into English] – "*Wok phun*." It's like ... I don't know how, "*Wok phun*." "*Wo*" is like "everything" and "*kphun*" is like "in a small enough container," or something like that.³¹⁶

³¹⁴ Afraid of Bear-Cook, personal communication, September 9, 2016.

³¹⁵ "What Are Horse Chestnuts and Ergots?" *Cowboy Way*, 2017, <http://www.cowboyway.com/What/WhatAreChestnuts.htm>.

³¹⁶ Afraid of Bear-Cook, personal communication, September 9, 2016.

There have even been recorded accounts of Indian warriors utilizing their horses to help them maneuver successfully enough in battle conditions to rescue the wounded and to take the bodies of those who have lost their lives back to the community to receive their proper ceremonial burial. The majority of the Plains Indians and other Indigenous cultures did not place the bodies of those who had passed immediately into a box and into the ground as many Christian-based cultures prefer. Instead, many Native Peoples throughout the Americas practiced “tree and scaffold burials,” where the bodies of the deceased were ceremonially placed high, close to the sky. In the book titled *Introduction to the Study of Mortuary Customs Among the North American Indians*, Harry Crecy Yarrow offers his observations and opinions regarding this practice:

These scaffolds are 7 to 8 feet high, 10 feet long, and 4 or 5 wide. Four stout posts, with forked ends, are first set firmly in the ground, and then in the forks are laid cross and side poles, on which is made a flooring of small poles. The body is then carefully wrapped, so as to make it watertight, and laid to rest on the poles. The reason why Indians bury in the open air instead of under the ground is for the purpose of protecting their dead from wild animals. In new countries, where wolves and bears are numerous, a dead body will be dug up and devoured, though it be put many feet under the ground.³¹⁷

In addition, Dan Aadland references the following description of Cheyenne warrior burials in his work titled *Women and Warriors of the Plains*. He explains:

When a Cheyenne warrior died, his body dressed in its finest clothes, was wrapped in robes or blankets, securely lashed with rope, then deposited in a burial lodge or on the open prairie with little to protect it from the coyotes, wolves and eagles. For predators to use the body was natural and not to be feared. Sometimes burial was in a tree on a platform of poles. Sometimes the body was placed in a natural cave or hole in the rimrocks, the opening then being sealed with rocks to complete the tomb. The warriors best war implements were placed with him (although a favorite piece of equipment might first be given by his relatives to a good friend), and his best horse was brought nearby, saddled and bridled, then killed for the brave’s use after death. Next the warrior’s soul would ride until it had found a trail where all the tracks pointed one way. This trail would lead him to the Milky Way.³¹⁸

An example of Indigenous warriors in the Americas utilizing the horse to help them to rescue the wounded or recover the bodies of those who had been killed in battle can be seen

³¹⁷ Harry Crecy Yarrow, *Introduction to the Study of Mortuary Customs Among the North American Indians* (Washington, D.C.: Government Printing Office, 1880), 66, <https://archive.org/details/introductiontost00yarr>.

³¹⁸ Dan Aadland, *Women and Warriors of the Plains: The Pioneer Photography of Julia E. Tuell* (Missoula, MT: Mountain Press, 2000), 103.

within Neil Coleman's article titled "The Feathered Horse Soldiers." He recounts the following observation from General Patrick Conner regarding an Arapahoe warrior:

An Arapahoe rode up and down in front of the command ... and while his horse was galloping was seen to swing himself down under his horse's neck, come up on the other side, and resume his seat, repeating the feat many times." This by any standards was quite a feat. The above was only one of myriad feats in combat for which he was quickly to become famous. For example, riding at full speed, usually within range of the enemy, the Indian often turned about and tried to help wounded comrades out of their plight. To enable them to perform such a service, the Indian drilled himself as a cavalry soldier with the following exercise: Running at a gallop, the Indian would lean over and reach to the ground for an object which had been placed there for that purpose. The same procedure was repeated with the object until he was capable of handling it with ease. When this was accomplished, the weight of the object was increased ... This procedure, often performed during battle by two Indians riding abreast, was very frustrating to the Army. Because of the Indians' practice of returning for their wounded and dead, it was almost impossible for the army to come up with any accurate number concerning Indian casualties during any one battle.³¹⁹

This practice of risking one's life to recover bodies of those slain in battle is clearly one that fascinated Western authors. Colonel Theodore Ayrault Dodge also references this practice in his article titled "Some American Riders" as published in *Harper's New Monthly Magazine*. Although his piece is derogatory in many ways, he states the following about this practice:

While wonderfully agile and with great endurance, the Indian lacks the strength of our athletes; and in boxing or wrestling, even after a course of instruction, would be no match for an average American. But he can perform equestrian feats which strike us as wonderful enough. It is a point of honor with him, as it was with the ancients, not to leave his dead or wounded in the hands of the enemy, liable to butchery or deprived of the rites of burial; and he will pick up a warrior from the ground without dismounting, almost without slacking speed, throw him across his pony, and gallop off. This requires much practice. Sometimes two men act together in picking up the man, but one is quite able to accomplish it. A buck represented the dead or wounded man. He lies perfectly still and limp if the former, or aids as far as is consistent with his hurt if the latter. Perhaps this is the best of the numerous feats the Indian can exhibit.³²⁰

³¹⁹ Neil Coleman, "The Feathers Horse Soldiers." *Pioneer West: Authentic Stories of the Old Frontier* (May 1967): 28.

³²⁰ Colonel Theodore Ayrault Dodge, "Some American Riders." *Harper's New Monthly Magazine* 82, no. 492 (May 1891): 854.

5.4 Husbandry

Indeed, there was an entire realm regarding what many of the Indigenous Peoples of the Americas felt was appropriate care and cultivation of the horse. This realm was considered sacred, and not secular. As the horse was considered a spiritual being, this involved the healing and spiritual fortification of the horse, as well as the equipment, riding techniques, training, breeding, preparation for battle, and other ways of caring for their physical health. In his article titled “Indian Horse Healing” as published in *Real West: True Tales of the American Frontier*, Raymond Schuessler focuses on the “horse medicine men” who had the ability to cure horses and determine the fate of others. His interpretation of them is as follows:

Almost obscured in formal Indian history was the horse medicine man and his collection of drugs and herbs with which he used to keep his horse in good health, ward off evil horse spirits and diminish the capacity of enemy horses in war and races. As mystic as some of the concoctions and procedures seemed to be, we must remember that the American Indian did add half a hundred botanical herbs to the medical science’s list of useful medical drugs. Up until recently we have known little because the art was kept very much a secret and it took a great deal of prying by Smithsonian researchers to unearth the information from surviving Indians with whom they had become friends.³²¹

Schuessler’s comment regarding the Western research community’s difficulty in securing information regarding the sacred is important to note. It may help to explain why so many of the “facts” gathered by Western academia about the life-ways, beliefs, and practices of Indigenous Peoples are incorrect, misleading, and/or based upon assumption rather than fact. As it was illegal for Native Peoples in the United States to practice their religions and ceremonies, anything sacred had to be kept hidden.³²² This ban was not lifted within the United States until President Jimmy Carter signed The American Indian Religious Freedom Act into law in 1978.³²³

In addition, within Native cultures, themselves, sacred knowledge is carefully guarded by traditional knowledge bearers and shared only at appropriate times and within appropriate settings, such as times of ceremony, teaching, or certain seasonal periods. Indeed, the recipient of such knowledge is also required to have “earned” the honor of carrying such knowledge by their selfless behavior, respectful attitude, and accomplishments. Therefore, as the horse is considered

³²¹ Raymond Schuessler, “Indian Horse Healing,” *Real West: True Tales of the American* (May 1975): 10.

³²² Native American Initiative, “Lesson 1 – Traditions,” School Violence Prevention Demonstration Program, accessed January 29, 2017, http://www.nativeamericaninitiative.org/ojibwe/?page_id=136.

³²³ Native American Rights Fund, “ ‘We Also Have a Religion’: The American Indian Religious Freedom Act and the Religious Freedom Project of the Native American Rights Fund,” *Announcements*, (Winter 1979), accessed January 31, 2017, <http://www.narf.org/nill/documents/nlr/nlr5-1.pdf>.

sacred, Western Academia would have had to understand and respect these protocols to receive deep and accurate knowledge regarding Indigenous horse husbandry practices.

In her article titled “Spiritual Commodification and Misappropriation: What Native People Want you to Understand,” Maria Jones encourages readers to respect the right of Native Peoples to decide “under which circumstances their ceremonies will be ‘shared’ with non-Indians.”³²⁴ She quotes Russell Means, *Lakota*, as follows:

The process is ultimately intended to supplant Indians, even in areas of their own customs and spirituality. In the end, non-Indians will have complete power to define what is and is not Indian, even for Indians. When this happens, the last vestiges of real Indian society and Indian rights will disappear. Non-Indians will then “own” our heritage and ideas as thoroughly as they now claim to own our land and resources.³²⁵

Another reason for the high degree of inaccuracy regarding the information written and circulated about the historical relationship between the Indigenous Peoples of the Americas and the horse has to do with the high degree of assumption and projection that has been present in the research data gathering process utilized by Western-trained academics to date. An example of this can be seen in Diana Serra Cary’s article titled “Horses and the Plains Indians.” Although this author is not of the Blackfeet culture, does not speak their language, and does not appear to have a mastery of the perspectives shared by the Indigenous cultures to which she refers, she states the following:

Having used dogs as pack animals for centuries, American Indians had first been inclined to see the horse as merely a larger travois dog, or an elk without antlers. For this reason, the Blackfeet dubbed the first horse they encountered “great elk dog.” Other tribes favored “big dog” or “medicine dog.” But soon the “dog” derivatives were dropped. Why waste these magnificent animals as pack dogs for women and children?³²⁶

Unfortunately, bias and prejudice are also a primary reason for the proliferation of inaccurate “information” that exists within this area of history. Examples of this can be routinely seen in mainstream publications. Such propaganda does have an effect on the minds of those

³²⁴ Mariah Jones, “Spiritual Commodification and Misappropriation: What Native People Want You to Understand,” Department of Theology, Spring Hill College, accessed January 29, 2017. <http://theolibrary.shc.edu/resources/mariahjones.htm>.

³²⁵ Ibid.

³²⁶ Diana Serra Cary, “Horse and the Plains Indians,” *Wild West: Chronicling the American Frontier* (April 2000): 51-59.

who read it and trust the source, and it has had grave side effects for Native Peoples.^{327 328}

Colonel Dodge even uses phrases such as “the old savage” and “old time Indian,” to describe Native Peoples and the “average bareback rider of civilization” to describe average American riders.³²⁹ He states the following about the horse husbandry practices of the Indigenous Peoples of the Americas:

The Indian has never developed a system of training his ponies. Each man teaches his own to suit himself, and accept imitation, or a certain trick shown from father to son, and thus perpetuated, there was none but individual knack in his horsemanship. The Plains pony was quickly taught after a rough and ready fashion, more by cruelty than kindness; in a manner, in fact, as different from the system of the Arabs as the fine shape of the Barb differs from the rugged outline of the bronco.³³⁰

Schuessler credits the Smithsonian Institution as his main source in the compilation of his piece. His article includes references to complete cures of animals that were “feeble and near death,” treatment for horses with “colic and distemper,” cures for broken bones and battle wounds, and even ways to ensure successful raids on enemy horses and escape from enemy hands.³³¹ He also offers a table summarizing data regarding some of the medicinal plants certain tribes utilized to cure their horses (See Appendix E). He states the following regarding *Oglala* horse medicinal practices:

The horse medicine cult of the Oglala [Lakota] was composed of persons who had dreamed of horse medicines and who held ceremonies in a teepee followed by a spectacular parade around the camp. One descendent claimed his great-grandfather originated the cult among the Oglala and recited the entire tale. The Oglala ceremony included dancing in imitation of horses. Oglala used horse medicine to make horses swift and fearless. Brood mares were also treated to produce fine colts.³³²

John R. Swanton also made reference to herbs utilized in the curing of horses with respect to the Choctaw Peoples in his book titled *Source Material for the Social and Ceremonial Life of the Choctaw Indians*. He states:

³²⁷ Talia Nelson, "Historical and Contemporary American Indian Injustices: The Ensuing Psychological Effects," 2011, Commonwealth Honors College Theses and Projects, paper 6, January 15, 2017, http://scholarworks.umass.edu/chc_theses/6.

³²⁸ National Congress of American Indians, "Ending the Legacy of Racism in Sports & The Era of Harmful 'Indian' Sports Mascots," October 2013, accessed January 29, 2017, http://www.ncai.org/resources/ncai-publications/Ending_the_Legacy_of_Racism.pdf.

³²⁹ Dodge, "Some American Riders," 852.

³³⁰ Ibid., 852.

³³¹ Schuessler, "Indian Horse Healing," 56-57.

³³² Ibid., 56.

The butterfly root (Choctaw, *hatapushik okhish*, “butterfly medicine”) was used for human beings in cases of colds. The tops could be employed as well as the roots. However, it seems to have been more often employed as a medicine for horses, being given when they had the blind staggers or seemed physically broken down. It was also given to them in the Fall to protect them from such sickness the following Spring.³³³

Indeed, the husbandry and care of the horse involved precise protocols that took into account their spiritual sensitivity and nature. Afraid of Bear-Cook (*Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher*) is from the *Oglala Lakota* Peoples. She explains that her grandparents had specific responsibilities with regard to husbandry of the Nation’s horses, and states the following about the way that she was taught to treat the horse:

... from the start the only thing that I would ever hear from my mother is she would always talk to the horses and she would call them, “*Takoja*.” “*Takoja*” in our language means “grandchild.” ... So, the relationship between my family particularly as it relates to the horses, is that loving, nurturing part that they gave to the horses by calling them “grandchildren.” And, each generation as it went would carry that same. So, today my parents are gone and my aunts, I’ve got one aunt left that I call “mom.” But even she was a horse woman. So, my family were always horse people. So, we always had relationship with these horses. And we always have called them “*Takoja*” and now it’s my turn. And so, that’s what I speak to the horses if I see them, talk to them, it’s in that language, it’s in the *Takoja* language. And there’s something about trust that happens when the horses hear you talking in that grandmother/grandfather way. Because they may have had different names to the horses depending on what the behavior of that horse was. They picked the names very seriously, and with spirit. And so, our horses were not named just because you threw a can and heard the sound of that can. You didn’t name them like that. They were treated just like you would treat your grandchildren. So, within that trust they extended themselves spiritually to their horses, and the horses in return responded to them in that trust ... And I don’t just go up and touch them because either they are going to look at you and you are going to immediately establish that contact. Or, if they even just look away, then I don’t get in front of them. There’s behaviors that you just don’t do in front of the horses. You don’t ride horses when you are on your moon time [menstruation]. They tell us when you are going to feed the horses, don’t feed them when you are on your moon time. It’s a time for that woman that is on the strongest time that she could be because she is renewing. And the only other time she’s stronger than that is when she is pregnant. But in that place where your creation, your pregnancy, it nurtures that horse. So, it’s different ways for different things ... I think if more of our people begin to have that strong relationship with the horses and accord them that relative part, the “grandchild, what can we do for you?” It’s always what can you do for them. But

³³³ John R. Swanton, *Source Material for the Social and Ceremonial Life of the Choctaw Indians* (Tuscaloosa: The University of Alabama Press, 2001), 238.

those are feelings that have come to us from our grandmothers, from before their grandmothers, on so on and back.³³⁴

The Lakota People's classification of horses as loved ones with sacred power is supported in the book titled *Healing Power of Horses*. Wendy Beth Baker explains as follows:

[Horses] were special beings, in the same classification as children and the elderly, containing powers from which they could draw; certainly more meaningful than a mode of transportation. Horses took people not only on external journeys but also on internal journeys to an awareness of feelings and healing, and to the growth of the soul. Horse medicine men had dreams or visions in which they gained knowledge about herbs and roots from wild horses or stallions. With this knowledge, they could not only cure sick horses but people as well.³³⁵

In addition to such protocols regarding the way in which horses needed to be approached and cared for, many of the Indigenous horse cultures throughout the Americas adorned their horses with objects, paint, and protective coverings to strengthen them and keep them spiritually and physically safe. One of the ways in which these ponies were adorned carried forward the ancient Indigenous tradition of utilizing masks. Most masks were made of organic materials that quickly decay. However, Western trained academics agree that masks such as those referred to as “transformation masks” on the Northwest Coast of North America are “thought to have emerged over a thousand years ago.”³³⁶ Indeed, “tribal masks have been part of the dance regalia and traditional ceremonies of many Native American tribes since ancient times.”³³⁷

Although Western authors state that the Indigenous Peoples began adorning the heads of their horses with masks because they were copying the Spanish tradition of covering their horses with “conquistador horse armor,” they deduce this based upon their claim that there were no horses in the Americas before the arrival of the Spanish horses to the mainland in 1519. However, Mike Cowdrey, Ned Martin, and Jody Martin do admit that “masking horses in North America is more than five centuries old”³³⁸ and do note that many of these masks were covered

³³⁴ Afraid of Bear-Cook, personal communication, September 9, 2016.

³³⁵ Wendy Beth Baker, *Healing Power of Horses: Lessons from the Lakota Indians* (Irvine, CA: Bowtie Press, 2004), 23-24.

³³⁶ Lauren Kilroy-Ewbank, “Transformation Masks,” Khan Academy, accessed January 30, 2017. <https://www.khanacademy.org/humanties/ap-art-history/indigenous-americas/a/transformation-masks>.

³³⁷ “Native American Indian Masks,” *Native Languages of the Americas*, 2015, accessed January 30, 2017, <http://www.native-languages.org/masks.htm>.

³³⁸ Mike Cowdrey, Ned Martin, and Jody Martin, *American Indian Horse Masks* (Nicasio, CA: Hawk Hill Press, 2007), vii.

in pre-Columbian designs. They state the following on page vii of his book titled *American Indian Horse Masks*:

Iconic motifs, some of which can be traced back into pre-Columbian times, are repeated again and again on many of these masks in contexts which reveal their intended meanings. This symbolism is explored in detail to reveal that many protective masks originated in visions of the powers which reside above the earth, or within it. Wrapped in thunder, stitched with lightening, braced by prayerful songs and plangent with the sound of bells, these masks translated an ordinary horse into a being of extraordinary abilities, which might carry a man into that place between cloud shadow and sunshine where neither arrows nor bullets could ever find him.³³⁹

In the book titled *A Song for the Horse Nation: Horse in Native American Cultures*, editors George Horse Capture and Emil Her Many Horses offer the following perspective, which can possibly help to offer context regarding Cowdrey, Martin and Martin's dilemma in understanding the historical timeline of Indigenous horse masks. They explain the following:

Although it is easy to forget, we must remember that American Indians have lived on this continent for tens of thousands of years, and their imprint can be seen across the landscape. Prehistoric drawings and carvings – the earliest of art forms – decorate the walls of cliffs and caves across North America and tell us of spiritual journeys, supernatural beings, animals, and the exploits of warriors from long ago. By identifying stylistic motifs, scholars can often determine which groups created the drawings and occasionally, a match can be found by comparing figures in rock art to those items made by contemporary tribes, confirming that some ancient art styles reach across the centuries.³⁴⁰

Cowdrey, Martin, and Martin continue by including the following intriguing descriptions of Native “leather armor” from their book:

Such leather armor continued in Indian usage until the early 19th century, for the Lewis and Clark expedition found it among the Northern Shoshone in August, 1805: “They have also a kind of armor which they form of many folds of antelope’s skin [and] unite with glue and sand. With this they cover their own bodies and those of their horses. These are sufficient against the effects of the arrow.”³⁴¹

Cowdrey, along with Ned and Jody Martin, provide an overview of their understanding of the significance of painting the horse for the Cheyenne Peoples. It is important to note that

³³⁹ Ibid., vii.

³⁴⁰ National Museum of the American Indian, *A Song for the Horse Nation: Horses in Native American Cultures*. Edited by Emil Her Many Horses and George Horse Capture (Golden, CO: Fulcrum, 2006), 38.

³⁴¹ Cowdrey, Martin, and Martin, *American Indian Horse Masks*, 2.

Indigenous Peoples do not use the word “shamanic” when referring to their own spiritual practices. However, they are known to use such words if they are trying to communicate with others who do not understand their culture or language. As has been mentioned by a number of project participants, many Indigenous concepts cannot be adequately captured or described by the English language. They explain as follows:

A painted horse, like a masked horse, enhanced its rider’s power through shamanic means. Traditional Cheyenne painting derives from a shamanic world-view, based in a cosmology and belief system first manifest in the area of the Great Lakes. Central to the shamanic ideology are concepts shared by many other New World traditions: that there is fundamentally but one life-giving energy – *Exhastoz* – comprised of a Cosmic Duality having both male and female aspects, opposed but complimentary; that the universe is characterized by three major divisions or worlds: the Above world, the Middle World, and the Underworld or Below World, each stratified; that form is a mask that can be changed at will by persons such as shamans, who have the ability to shape-shift from one form to another in their spirit bodies. Painting the face or body is a manifestation of this ability, a kind of masking creating an idealization of self that aligns one’s person and spirit with the universe. The horses’ paint, like other forms of masking, extends the idea of the riders’ selfhood. The horse becomes part of an enveloping mask of spirit.³⁴²

In addition to the way in which they viewed, cared for, prayed with, and adorned their horses, the way in which they rode them was also distinct from the style that was introduced by the Spanish conquistadors. Roe quotes Larocque’s description of the Crow way of riding and horse husbandry practices. Interestingly, he equates this treatment of the horse as “a much closer approximation to our own ideas”³⁴³ rather than the abusive behavior graphically described by the author Dobie in a quote used on the previous page. This includes seeing Natives saddling their horses and “tear[ing] raw flesh until the blood flows” only to “saddle and ride them with indifferent composure” the following day. Roe states the following regarding the Crow:

Their saddles are so made as to prevent falling either backwards or forward, the hind part reaching as high as between the shoulders and fore part of the breast. The women’s saddles are especially so. Those of the men are not quite so high, and many use saddles such as the Canadians make in the Northwest Country. They are excellent riders, being trained to it from their infancy. In war or hunting if they mean to extract their horses to the utmost they ride without a saddle. In their wheelings and evolutions they often are not seen, having only a leg on the horseback and clasping the horse with their arms around his neck, on the side opposite to where the enemy is. Most of their horses can be guided to any place without bridle, only be leaning to one side or the other they turn immediately

³⁴² Ibid., 53.

³⁴³ Roe, *The Indian and the Horse*, 263.

to the side on which you lean, and will not bear turning until you resume a direct posture. They are very fond of their horses and take good care of them; as soon as a horse has a sore back he is not used until he has healed, no price will induce a man to part with a favorite horse on whom he places confidence for security either in attack or flight.³⁴⁴

In the book titled *A Song for the Horse Nation: Horses in Native American Cultures* edited by Horse Capture and Her Many Horses for the National Museum of the American Indian, the issue of “horse equipment” is addressed. Here, the authors differentiate from a gentle pre-Spanish bridle and a Spanish –style bridle that was later adopted by Native Peoples. They state the following:

It is said that some Indian riders long ago didn’t always use bridles but guided their ponies by applying pressure to the horse’s ribs with their knees. A well-trained mount could quickly respond. Another method of not only guiding the horse but also of leading it was the use of a buffalo-hair braided rope that, when inserted into the natural gap in the horse’ teeth and tied under the jaw, formed a basic bridle. Later, Spanish-style bridles were adopted, although the bit caused more pain. Beaded strips over the harness leather added an Indian flavor to these bridles.³⁴⁵

Finally, within his book *The Indian and the Horse*, Roe addresses his understanding of Native horse breeding as follows:

Breeding seems to have become very largely a matter of individual (tribal) capacity or practice; or perhaps even inclination ... The great Indian defect as breeders was not, in Dobie’s opinion, poor stallions as much as nonselection of mares. He observes that a few of the Northern tribes came to understand breeding. Like so many other Indian phenomenon, this varied among tribes. The Sarcee were seemingly good horse breeders, the Cree made no attempt to control breeding. The outstanding horse breeders among the Northern tribes were indisputably the Nez Percé. The foremost authority on this tribe is Francis Haines. The famous Appaloosa horse of the Nez Percé is classified by Haines as “a direct result of care in breeding,” and not to be confused with the pinto.³⁴⁶

According to Rickman (*Caretaker and Teacher*) a project participant of Cherokee and European ancestry who helped to save the traditional Choctaw horse, the Choctaw, Cherokee, and Chickasaw Peoples had a very precise breeding program based on phenotype. Here he refers to the “old saddle test,” which was handed down to him by the Whitmire family. This Cherokee family brought their Native ponies with them to Oklahoma during the forced march known as the “Trails of Tears.” The Whitmire’s utilized this “test” to help them to determine whether or not a

³⁴⁴ Ibid., 263.

³⁴⁵ National Museum of the American Indian, *A Song for the Horse Nation*, 36.

³⁴⁶ Roe, *The Indian and the Horse*, 254-255.

horse would be allowed into their carefully managed herds. As published in an earlier article of mine, Rickman explains as follows:

The Chickasaw, Choctaw and Cherokee horses are basically the same horses. [Their tribal affiliation] depended more on who owned them than it did on their genetic DNA. I think many Native Americans had the same horses, and these horses had “been there forever” ... [The Whitmire’s] would say when you were selecting your stallions to breed, ‘Make sure that this saddle will fit. If it does not fit, do not introduce that horse into the herd.’ If the saddle fit, then you knew that if you rode that horse it would always bring you home... [The Choctaw/Cherokee/Chickasaw horsemen] were looking for a high withered horse that was deep-chested, sure-footed, with stamina and the ability to live off the land.³⁴⁷

5.5 Summary

In merging the testimony of project participants with what has been written by the dominant Western Culture, Native scholars, the media, and mainstream academia, a more accurate picture of the origin, spirituality, healing practices and husbandry surrounding the horse within Indigenous American cultures emerges. Likewise, the consistencies – and inconsistencies – become more obvious. As the information in this chapter has shown, much of what Western Academia has put forth regarding this topic and the Native Peoples in general, was written and compiled from a place of bias and ignorance as to the ontology, epistemology, and axiology of Indigenous Peoples. As Russell Means pointed out, when this occurs “non-Indians will have complete power to define what is and is not Indian, even for Indians ... [and] the last vestiges of real Indian society and Indian rights will disappear.”³⁴⁸ As scholars, when such illusion is exposed, we must utilize our knowledge, skills, and ethics to ensure that the necessary corrections are made so as to present the most truthful and accurate accounts possible. We cannot erase the past, but we can create a future that allows our children and our children’s children to benefit from the lessons we have learned.

³⁴⁷ Yvette J. Collin, “The Return of the Southern Horse.” (Florence, AL: Sacred Way, 2014), 14.

³⁴⁸ Jones, “Spiritual Commodification,” <http://theolibrary.shc.edu/resources/mariahjones.htm>.

Chapter 6

Further Analysis of Western Academic Equine Science

As has been demonstrated, the discrepancy between the Western Academic version of the history of the horse in the Americas and the version put forth by many of the Indigenous Peoples of the Americas is stark. The data gathered from project participants combined with information gathered from previous historical records and some much-needed cross-cultural translation lends credence to the Native perspective. Historically, a high level of cultural bias and cross-cultural confusion has been present within many of the research methodologies and methods utilized regarding this subject. These issues appear to be compounded by an overall propensity to interpret conclusions based upon prior Western Academic authority.³⁴⁹ Due to these factors, it becomes imperative that further research is done to investigate, seek to understand, and resolve the anomalies that are present. As “science does not allow assumptions, but rather rests on experimental proof,”³⁵⁰ theoretically more objective data can be determined in looking to science. However, the above issues seem to have permeated the Western scientific community with regard to this subject, as well. Chapter 6 will examine the scientific work that has been done with regards to dating (or not dating) petroglyphs, fossil remains, and DNA. It will also further examine inconsistencies and anomalies within the scientific field on the subject at issue, and the conclusions drawn therefrom.

6.1 Presence of Cultural Bias Within Equine Science

As Heather Pringle explains in her book titled *In Search of Ancient North America: An Archeological Journey to Forgotten Cultures*, the foundation of archeology has been shaped by bias against Indigenous communities. She explains as follows:

The rabid quest for artifacts and the excavation of tombs ... yielded scant information about the lives of those who roamed the continent in times past. But North American researchers were slow to see this as a problem. Like many other members of nineteenth-century society, they saw native tribes as primitive and naïve, childlike wastrels who had long preferred the adrenaline of the hunt to the drudgery of building civilizations. Native people, concluded Ohio scholar Caleb Atwater in 1820, were “men in a savage state, little

³⁴⁹ Steven Jones, “Ancient America: Horses, Mantis Glyphs and Brewer Caves,” South Towne Exposition Center, posted October 2015, <https://vimeo.com/198174786>.

³⁵⁰ Baily and Brooks, *Horse Genetics*, 186.

versed in the arts of civilized life”³⁵¹ ... Throughout the nineteenth century, this racism actively shaped archeological thought ... Before long, English scholar Sir John Lubbock published a highly influential book ... concluding that European culture represented the pinnacle of human cultural evolution; tribal groups in North America, on the other hand, occupied the lowest rungs.³⁵²

Indeed, the side effects of this approach can be seen today in the legal realm of Cultural and Intellectual Property Rights (CIPR). The instances where the CIPR of Native Peoples have been denied by researchers, companies, and the dominant Western culture in general, are numerous^{353 354 355 356 357} Indeed, as Donna Ngaronoa Gardiner explains in her article “Hands Off Our Genes: A Case Study on the Theft of Whakapapa,” the process of colonization has played a significant role in the denial of Indigenous Peoples’ intellectual property rights:

The most fundamental right to determine what Indigenous People see as being their intellectual property has been destroyed through the processes of colonization. The long history of the export and destruction of artifacts (the ‘cultural’ property) of Indigenous peoples grew out of this imperial belief in the right to define.³⁵⁸

Pringle explains that “few [archeologists/anthropologists] seriously believed that North American tribal cultures were ancient ... suggest[ing] that Asian immigrants colonized the continent relatively recently – within the past 4,000 years or so.”³⁵⁹ However, with the help of some later technologies, such as “mapping –three dimensional positions of artifacts and features; classifying finds such as projectile points and pottery shards; dating diverse layers by methods as varied as radiocarbon, archeomagnetic, tree-ring, thermoluminescence, and obsidian hydration

³⁵¹ Robert Silverberg, *Mound Builders of Ancient America*. Greenwich, Connecticut (New York Graphic Society Ltd., 1968), quoted in Heather Pringle, *In Search of Ancient North America: An Archeological Journey to Forgotten Cultures* (New York: John Wiley & Sons, 1996), 5.

³⁵² Heather Pringle, *In Search of Ancient North America: An Archeological Journey to Forgotten Cultures* (New York: John Wiley & Sons, 1996), 5.

³⁵³ Thedis Berman, “As Long as the Grass Grows: Representing Indigenous Claims,” in *Indigenous Intellectual Property Rights: Legal Obstacles and Innovative Solutions*, edited by Mary Riley, 3-25 (Walnut Creek, CA: AltaMira Press, 2004).

³⁵⁴ Jeremy Singer Vine, “The Consent Conundrum,” *Slate* (February 2, 2010), http://www.slate.com/articles/health_and_science/medical_examiner/2010/02/the_consent_conundrum.html.

³⁵⁵ Amy Harmon, “Indian Tribe Wins Fight to Limit Research of Its DNA,” *Philosophy of Science Portal* (blog), 2010, <http://philosophyofscienceportal.blogspot.com/2010/04/havasupai-indians-vs-arizona-state.html>.

³⁵⁶ Terri Janke, “Minding Culture: Case Studies on Intellectual Property and Traditional Cultural Expressions,” World Intellectual Property Organization (Geneva: WIPO, 2003), http://www.wipo.int/edocs/pubdocs/en/tk/781/wipo_pub_781.pdf.

³⁵⁷ Donna Ngaronoa Gardiner, “Hands Off Our Genes: A Case Study on the Theft of Whakapapa,” *Cultural and Intellectual Property Rights: Economics, Politics, and Colonisation*, vol. 2 (1997): 44-56, http://www.rangahau.co.nz/assets/iri/cultural_intellectual_property.pdf.

³⁵⁸ Ibid., 48.

³⁵⁹ Pringle, *In Search of Ancient North America*, 6.

tests, and sifting through analysts' reports on such arcane subjects as DNA analyses of ancient hair samples or microscopic wear patterns on tools" some "liberal researchers now place the arrival of humans between 21,000 and 42,000 years ago."³⁶⁰

Indeed, in the article titled "Indian Pony Mystery," Yuri Kuchinsky describes what he sees as cultural bias within academia with regard to the history of the horse in the Americas as follows:

Many Native Americans insist that they were riding and breeding horses many centuries before the Spanish ever made it to America. Their tribal memories are customarily put down, ignored, and disregarded by our mainstream scholars ... At this time, an assumption among the historians is nearly universal that there were no horses in America before Columbus (except, of course, for those that became extinct very early on.) But very few professional historians, indeed, have investigated this subject firsthand. They all just work from a previous received assumption that there were no horses in America before Cortes arrived to Mexico in 1519, because this is "what everybody already knows." And yet, there are very substantial problems with this view.³⁶¹

With such bias serving as the underlying foundation of an academic field, it would not be surprising to find evidence of bias throughout the history of the development of such field. However, when the field in question is "Western science," it can be very surprising and concerning. As the examples within this section show – surprise and concern aside – such cultural bias has permeated the realm of Western science with regard to the history of the horse in the Americas.

6.2 Rock Art and Other Traditional Methods of Recording

Native Peoples across the Americas recorded their traditions, values, and belief systems over many hundreds and thousands of years. Some of these recordings included images and representations of the horse. Their recordings took a number of forms. These forms included but were not limited to petroglyphs and pictographs on rock formations, geoglyphs, "winter counts" on animal hides, sculptures, and paintings and etchings on pottery, cave walls, burial sites, and other areas that were used in ceremony. As most Indigenous cultures within the Americas utilized organic materials to create their sacred objects they quickly decayed, and in many

³⁶⁰ Ibid., 7-8.

³⁶¹ Yuri Kuchinsky, "Indian Pony Mystery," *North American Bioforatean Review* 2, no. 3 (December 2000):1, <http://www.strangeark.com/nabr/NABR5.pdf>.

instances, they are not available to be dated.³⁶² However, countless petroglyphs and other forms of rock art have survived. Sadly, most of these depictions that include horses have yet to be dated, as it is assumed by the dominant Western culture that “anything with a horse” must have been created post-first contact, or within the last 500 years. Examples of this are cited throughout this section. James D. Keyser’s book titled *Indian Rock Art of the Columbia Plateau* offers the following description of petroglyphs:

Petroglyphs are rock engravings, made by a variety of techniques. In the Pacific Northwest, pecking was the most common method: the rock surface was repeatedly struck with a sharp piece of harder stone to produce a shallow pit that was then gradually enlarged to form the design. Some Columbia Plateau petroglyphs were also abraded or rubbed into the surface with a harder stone to create an artificially smoothed and flattened area contrasting with the naturally rough-textured rock. Pecked designs were sometimes further smoothed by abrading.³⁶³

An example of “assumption” rather than “dating” with regard to horse petroglyphs can be seen on Ned Eddins’ website titled *Southwest Rock Art Pictures*. After he states that “rock art cannot be dated accurately by any technique presently known,”³⁶⁴ (which is no longer the case) he writes the following regarding a photograph of Newspaper Rock in Canyonlands National Park:

As can be seen from Newspaper Rock in Canyonlands National Park, the petroglyphs vary from several thousand years old to three hundred years ago or less ... note the Indian on a horse. The Ute Indians were the earliest Indians to have horses in the canyonlands area, and that wasn't until after the Pueblo Revolt of 1680. The first recorded Europeans to enter southeastern Utah with horses and mules was the Dominguez Escalante Expedition in 1776.³⁶⁵

In instances where ancient depictions of horse-like creatures and Native Peoples have been radiocarbon dated and the official date identifies the artwork as having been created before the 1500s, many Western-trained scientists have simply decided that these creatures must be something other than horses. An example of this occurred in the Southeastern region of the United States where the paintings and etchings of Native Peoples located in the Cumberland Plateau (from Kentucky down into northern Alabama) have been dated to as far back as 6,000 years ago. The article by Matt Smith titled “Ancient Tennessee Cave Paintings Show Deep

³⁶² Kilroy-Ewbank, “Transformation Masks,” 10.

³⁶³ James D. Keyser, *Indian Rock Art of the Columbia Plateau* (Seattle: University of Washington Press, 1992).14.

³⁶⁴ Ned Eddins, “Southwest Rock Art Pictures,” *The Fur Trade Role in Western Expansion*, 2017, <http://thefurtrapper.com/home/southwest-rock-art>.

³⁶⁵ Ibid.

Thinking by Natives,” quotes scientists as stating, “The art sites, predominantly found in caves, feature otherworldly characters, supernatural serpents and dogs that accompanied dead humans on the path of souls.”³⁶⁶

However, this interpretation of the pictographs (paintings) illustrating large quadrupeds accompanying people makes little sense culturally, as it has been documented that the ancestors of the Peoples known today as the Choctaw Indians who resided in these geographical areas had small ponies (not large dogs) that played a key role in burial rituals. No dogs near the dimensional size illustrated in these pictographs were known to exist at such time. These ponies were considered to be so sacred to these Indigenous Peoples that they were often killed in ceremony in order to allow the spirit of that animal to accompany the soul of the deceased person into the afterlife.³⁶⁷

Another example of science’s propensity to “assume” and defer to previous academic authority rather than “look” by actually scientifically dating, occurs with a rock art image of a horse and rider that is located in an area in southern Peru that is well known for “its rich collection of Pre-Columbian rock art” on one of the petroglyph boulders at a location called Alto de Pitis.³⁶⁸ Although van Hoek is clearly meticulous in his cataloging of the images, he does not state that he dated the “post-Columbian Horseman.” Instead, he uses the following explanation to support the chronology in his article:

... in the Americas indigenous horses became extinct at the end of the Pleistocene, about 12000 years ago. Thus, horses were absent in North and South America until the Spanish conquistadors introduced domesticated horses from Europe, from 1492 onwards. Also, the ancient Andeans who had in South America domesticated the llama, the alpaca and the dog, knew nothing of the horse until around 1528. Francisco Pizarro and Diego de Almagro made first contact with Inca Empire near the modern town of Tumbes on the northern coast of what is now the modern republic of Peru.³⁶⁹

³⁶⁶ Matt Smith, “Ancient Tennessee Cave Paintings Show Deep Thinking by Natives,” *CNN*, updated June 23, 2013, <http://www.cnn.com/2013/06/20/us/tennessee-cave-art/>.

³⁶⁷ Carson, “Horses and the Economy,” <https://docs.google.com/viewerng/viewer?url=http://www.academicroom.com/sites/default/files/article/190/James+Taylor+Carson,+Horses+and+the+Economy+and+Culture.pdf>.

³⁶⁸ van Hoek, “The Horseman of Alto De Pitis, Peru,” https://www.academia.edu/22684628/VAN_HOEK_M._2013_The_Horseman_of_Alto_de_Pitis_Peru_A_Post-Columbian_Outsider_in_a_Pre-Columbian_Landscape._Andean_Rock_Art_Papers_-_Part_1_-_Paper_1.

³⁶⁹ Ibid.



Figure 4 A Horseman Petroglyph at Alto de Pitis, Peru.³⁷⁰

The non-scientific nature of van Hoek’s deduction was noted and captured in the May 2016 blog titled *The Horseman of Alto de Pitis – Part III* by NephiCode.com.³⁷¹ After noting that the “images and the method of [the depiction of the Horseman] matches precisely the other pre-Columbian rock art found on the surrounding boulders,” the author states the following:

... the first reaction of the discoverer was that it had to be post-Columbian rock art. Why? Because everyone knows there were no horses in the Americas before the Spanish arrived ... In fact, when these rock art areas were first found, the caves or areas in which they were located were all “dated” to a post-Columbian period based solely on the man riding a horse. This mentality has caused the depiction of “The Horseman of Alto de Pitis” to be labeled “post-Columbian,” even though it has been found in a strictly pre-Columbian rock art find where all the other rock art seen is definitely pre-Columbian.

Indeed, petroglyphs of horses (Figure 4) within the Americas have been openly treated differently – without scientific methodology or following proper scientific protocol - by scientists with regard to dating for more than a century. Passages such as the following can be found regularly throughout books on petroglyphs and rock art: “Determining the actual age of most Columbia Plateau rock art sites is difficult to do with certainty, except in instances showing horses or other objects of known historic age.”³⁷² In his work titled *Indian Rock Art of the*

³⁷⁰ Ibid., 1.

³⁷¹ With regard to scientific research on this subject, it is important to note that the Mormon Church has put some emphasis and financial backing toward deciphering the history of the horse in the Americas. As the Book of Mormon describes horses in the Americas before the arrival of Columbus, critics have long used the fact that “there were no horses in the Americas” as proof that their doctrine is not valid. However, just because a particular group has an interest in a topic and wishes to support research being done in the area does not mean that their scientific findings are necessarily biased, especially when independent laboratories are used.

³⁷² Keyser, *Indian rock Art*, 7.

Columbia Plateau, Keyser describes the rock art of the Eastern Columbian Plateau in Western Montana. In this geographic location, he describes action scenes such as “a horse and rider” and states that “fewer than 25 percent of the animal figures in western Montana have sufficient anatomical detail for identification of species, but bison, deer, mountain sheep, horses and a dog, a bird, and a turtle are known.”³⁷³ The following figures are located in the Central Columbia Plateau (also yet to be dated by scientific methods):

... horses are painted at eleven sites and pecked at one other. Four painted examples have the characteristic elongated body, long neck, and flowing tail, but no rider. One wears a saddle. The remaining horses, all ridden, range from nondescript quadrupeds, unrecognizable without the mounted human, to a very stylized depiction showing an obvious horse whose rider wears a flowing, feathered bonnet.³⁷⁴

In addition to those horse petroglyphs that have been identified and “dated by assumption” rather than by utilizing scientific methods, there are some that have been scientifically dated. In his article titled *The Horse and Burro as Positively Contributing Returned Natives in North America*, Craig C. Downer sites an example of a horse petroglyph and geoglyph that were dated utilizing scientific methods and were verified to have been Pre-Columbian and post “Ice Age period.” Of the horse petroglyph discovered “west of White Mountains in eastern California” he states the following:

Judging from the brownish oxidation on the chiseling, this horse was not a recent addition to the ancient petroglyphs here. Scientific analysis of the patina of some of these petroglyphs has revealed ages up to 3,000 years. By visually comparing patina hues, I estimate this horse could be well over 1,000 years old.³⁷⁵

Downer also addresses geoglyphs depicting 53-foot-long horses in the Mohave Desert near Blythe in southeast California. “Geoglyph” is a “word used by archeologists and the public to refer to ancient ground drawings, low relief mounds, and other geometric earth and stone work found in isolated places throughout the world.”³⁷⁶ Regarding the two horses among the several geoglyphs collectively known as the “Blythe Giants” he states:

³⁷³ Ibid., 37-38.

³⁷⁴ Ibid., 68.

³⁷⁵ Craig C. Downer, “The Horse and Burro As Positively Contributing Returned Natives in North America,” *American Journal of Life Sciences* 2, no. 1 (2014): 7, doi: 10.11648/j.ajls.20140201.12.

³⁷⁶ K. Kris Hirst, “Geoglyphs – Worldwide Ancient Art of the Landscape: Desert Ground Drawings, Effigy Mounds, and Geometric Shapes,” *About Education*, updated February 5, 2017, <http://archaeology.about.com/od/gterms/g/geoglyphs.htm>.

They were formed by removing stones of desert pavement to reveal lighter substrata, a process called intaglio, often associated with trails and dance circles formed by the pounding of human feet. They indicate that horses were held in high regard by Amerindians and in relatively recent times. The figures have been expertly dated by geologists from the University of California Berkeley at 900 A.D. \pm 100 years and were first discovered by pilots from the U.S. Army Air Corps flying between Hoover Dam and Los Angeles in 1932. They are presently under the care of the Bureau of Land Management ... [t]his figure meant that someone in California knew enough about the horse to represent it on the desert floor ... centuries before the Spaniards re-introduced the animal to North America. Though airline pilots and later observant investigators and writers instantaneously recognized this figure as a horse, BLM officials claim it depicts a puma and have restricted the public from accessing the area.³⁷⁷



Figure 5 Geoglyph Depicting a Horse as Viewed from Google Maps. ³⁷⁸

In her book titled *In Plain Sight: Old World Records in Ancient America*, Gloria Farley addresses the bias that she encountered within academia regarding the history of the horse. After a lifetime of scientific work in this area, she concluded that there were horses in the Americas post “Ice Age” and pre-Columbus. She believed that they were likely tied to pre-Columbian visitors to North America, such as the Norse. She states as follows:

Some evidence suggests that there may have been horses in America before the time of Columbus. This evidence is generally ignored, perhaps because it is contrary to deeply held opinion and assumptions. The evidence includes excavated horse bones, horse effigies both large and small, and especially petroglyphs of horses which are labeled in ancient script or have features which are not associated with Native American

³⁷⁷ Ibid.

³⁷⁸ Bryan Hill, “Blythe Intaglios: The Impressive Anthropomorphic Geoglyphs of the Colorado Desert,” *Ancient Origins: Reconstructing the Story of Humanity’s Past*, 2015, <http://www.ancient-origins.net/ancient-places-americas/blythe-intaglios-impressive-anthropomorphic-geoglyphs-colorado-desert-003003>.

petroglyphs ... Evidence of prehistoric horses is generally misinterpreted, or it may have been in some instances actually suppressed.³⁷⁹

Indeed, she also cites the case of the Blythe Canyon horse geoglyphs, which she calls “effigies,” as another example of the “selective blindness of scholars.”³⁸⁰ She refers to Smithsonian researcher Frank M. Setzler’s conclusion on the subject as follows:

Setzler thought they could not have been made by Indians of the late Pleistocene period, when horses were still present in North America, because of the lack of patina or “desert varnish,” which forms in less than 10,000 years. He considered the effigy of the horse and said: “That brings us right up to 1540 A.D., for in the intervening centuries there were no horses around to serve as models for the Indian sculptors ... I think the giant effigies ... were fashioned sometime between 1540 and the middle of the nineteenth century.”³⁸¹

In his book titled *Twilight of the Mammoths: Ice Age Extinctions and the Rewilding of America*, Paul S. Martin addresses what he calls “split-twig figurines” that were found in Stanton’s Cave in New Mexico and were associated with “extinct animal remains.”³⁸² Martin claims that the pre-Columbian figures look like “some kind of small ungulate, either a mountain sheep or a deer,” and explains that many of the figurines were removed from their original sites and brought to museums by “well-intentioned individuals who sought to keep them safe.”³⁸³ Due to this, archeologists were not able to examine the exact areas inside the cave where many were found. He describes the following:

Each figurine was 4 to 6 inches in length and had a head, neck, and legs attached to a body, all constructed from a single willow twig ... Some even had a slender twig or splinter inserted through the midsection, very likely symbolizing a spear ... With no knowledge of the figurines’ provenience (exact location within the cave), a crucial piece of information in site analysis, it was impossible to reconstruct any pattern that might help determine their meaning or function. Undoubtedly any figurine arrangements originally left on the cave floor had been the first to disappear. However ... [the archeological team] discovered some figurines in clusters of up to five that had been carefully cached between flat rocks by human hands. There were a total of over 160 figurines, most of which radiocarbon dated at 3,000 to 4,000 years.³⁸⁴

³⁷⁹ Farley, *In Plain Sight*, 339.

³⁸⁰ Ibid., 340.

³⁸¹ Ibid.

³⁸² Paul S. Martin, *Twilight of the Mammoths: Ice Age Extinctions and the Rewilding of America* (Berkeley: University of California Press, 2005), 160.

³⁸³ Ibid.

³⁸⁴ Ibid.

As is shown by this reference, the split-twig figurines were carbon dated and they are definitely pre-Columbian and within the period where there were supposed to be no horses in the Americas. In addition, archeologists found no evidence that Stanton Cave was ever lived in. For example, there were “no hearths, no kitchen middens containing bone scraps, no stone knives or scrapers ... [or] pottery shards” found.³⁸⁵ This fact would imply that the cave was likely used for sacred and ceremonial purposes. Although it is possible that these figurines were indeed replicas of an “extinct goat” whose remains were also found in the cave, as these scientists presume, the long neck and proportions look more like those of a horse than a mountain goat or sheep. In addition, the figurine does not have horns, as do sheep, goats, and male deer. For comparison purposes, underneath the image of the split-twig figurine (Figure 6) I have included images of the San Clemente goat (Figure 7), a primitive goat that was found in the San Clemente islands off the coast of California, as well as a churro sheep (Figure 8), which the *Diné* (Navajo Peoples) claim was Indigenous to New Mexico.

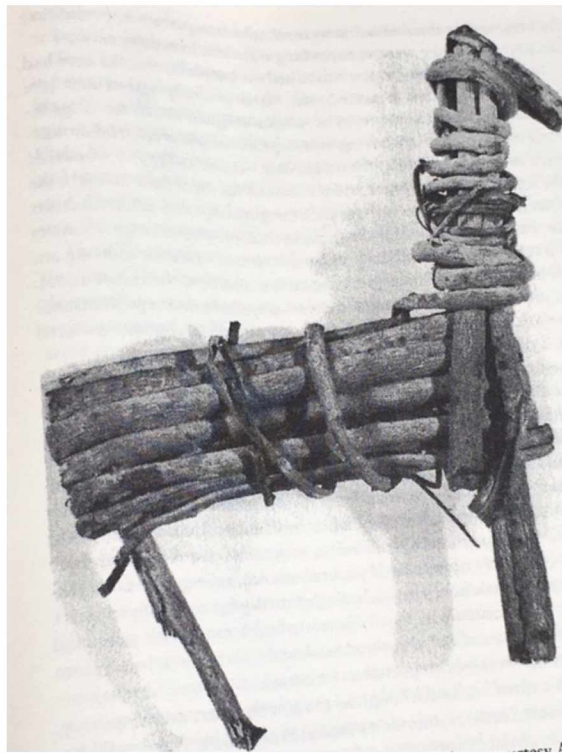


Figure 6 Split-twig Figurine from Stanton's Cave.
(Photo from Arizona State Museum)³⁸⁶

³⁸⁵ Ibid.

³⁸⁶ Ibid., 161.



Figure 7 Photo of San Clemente Goats.³⁸⁷



Figure 8 Photo of Churro Sheep Ram.³⁸⁸

³⁸⁷ SVF Foundation, “San Clemente Goats,” 2016, <https://www.svfoundation.org/animals/san-clemente-goats>, 1.

³⁸⁸ Slow Food USA, “Navajo-Churro Sheep: Ovis Aries,” 2017, <https://www.slowfoodusa.org/ark-item/navajo-churro-sheep>, 1.

In addition to petroglyphs, pictographs, geoglyphs, and figurines, carvings of horses on pre-Columbian structures also exist. Milton R. Hunter addresses the presence of a carving that he describes as “a clear representation of a horse” with a person.³⁸⁹ This carving, presented in the photograph below (Figure 9), is etched into the Mayan Temple of the Plaques at *Chichén Itzá* in the *Yucatán*.



Figure 9 Representation of a Horse in Mayan Temple.³⁹⁰

In his book titled *Archeology and the Book of Mormon*, Hunter quotes his Maya guide as having explained the following about this carving:

Some of the most outstanding Maya scholars and archaeologists, such as Dr. J. Eric S. Thompson and Dr. Sylvanus G. Morley, date the erection of most of these buildings as Chichén Itzá at probably 1,000 A.D. If their dating is correct, in all probability this representation of the horse was carved about five hundred years before Columbus discovered America. It stands to reason that if these ancient Maya people had had no horses to observe they could not have carved a likeness of one on this building.³⁹¹

³⁸⁹ Milton R. Hunter, *Archeology and the Book of Mormon* (Salt Lake City: Desert Book Company, 1956), 5.

³⁹⁰ The Church of Christ Interactive Book of Mormon Archeology Map, “Carving of Rider on Horse,” 2011, http://www.cocsermons.net/rider_on_horse.html.

³⁹¹ *Ibid.*, 7.

The data collected from the interview with Oviedo (*Western Trained Scientist, Caretaker, and Scholar*) collaborates the probability of Hunter's claim that the horse was present and depicted within pre-Columbian Mayan society. Oviedo's scholarly and professional focus has been in livestock reproduction for the past forty years. His education in this area is as follows a double major Bachelor's degree in Animal Husbandry/Science from the University of Chihuahua, a Master's Degree in Animal Reproduction from *Universidad Internacional de Turialba*, Costa Rica, a doctorate in Reproductive Physiology from New Mexico State University, and a post-doctorate from Colorado State University. He is also an accomplished artist whose pieces are in major museums and collections around the world. As Oviedo's family was one of the founders of the National Museum of Anthropology, as a young boy he spent a great deal of time with the museum curators. He can recall "horse-like figures" on the pre-Columbian monuments. He states as follows:

[My family] is European and married into the culture in Mexico. And before the *Museo Nacional de Antropología* there used to be museums all over Mexico. You want to see *Toltecs*? Ok, go to that museum, it's on *La Calle de Cinco de Mayo*, or whatever. And you want to see some *Huasteca*, there are collections here and collections there. So, the *Museo Nacional de Antropología* put all those bits and pieces together and formed the museum... [the pre-Columbian cultures represented in this museum] have horse-like figures. Mostly like when you go from the Middle part of Mexico, and Baja California and thereabouts, there's some cultures that have some. They are not detailed. If you want to see detailed, the only culture that did details around the world, to a really good point, is the Egyptians. The rest of the people, they have their own style and it's kind of abstract ... they had monuments and those engravings.³⁹²

Likewise, the data collected during the interview with Koskey (*Academic Scholar, Western Trained Scientist, and Teacher*) confirms not only that the Maya had pre-Columbian history that included the horse, but that they also left physical records of this relationship. Koskey has his PhD in Anthropology and has completed many years of fieldwork with and for a number of Indigenous cultures. Here, he details his discussion with a Maya man "Alejandro," an "intelligent young man who was not very educated in the Western sense but very aware of his culture and the stories."³⁹³ Koskey worked alongside Alejandro at an archeological dig in Belize at a site called *Caracol* on the Guatemalan border. He recalls that they were discussing the

³⁹² Oviedo, personal communication, August 20, 2016.

³⁹³ Koskey, personal communication, October 18, 2016.

defensive fortification of traditional Mayan cities at the time of this exchange in 1987 or 1988 and states as follows:

... one of the things I said was that, “Wow, I bet these platforms,” because they would also build up sometimes ramparts in times of dire need on the platform so there was like a rampart down below, then a ditch and then the platform, which acted as a wall and then maybe another earthen rampart along that. And I said, “Boy I bet those Spaniards couldn’t use their horses to any advantage against something like this.” And he said, “No, especially since our people would meet them in the lowlands with our own horsed warriors.” And I said, “But there were no horses here.” He just kind of smiled and looked at me and said, ‘Well, of course there were horses here.’ And I said, “Well, that’s odd because most anthropologists and biologists ... think that there were no horses here.” And he said, ‘Well, there weren’t many but they were here.’ And this was in a jungle, it was not like this was the Great Plains or something like this, or the Pampas or something like that. This is not like “prime horse country.” Now, at the time ... I dismissed it, I blew it off. I didn’t say, ‘Oh, you’re wrong.’ But I just thought, “Well, ok.” Me being young and Western and the arrogance that comes with ... things like that I just thought, “Well, he’s just not educated. I am, I know, he doesn’t know.” End of story, and I didn’t think about it again for years and years and years.³⁹⁴

Koskey explains that “the thing [he] did best in archeology in the days before digital cameras ... was being able to precisely draw what [he] was finding.”³⁹⁵ This included the reconstruction of bowls from pottery shards and 3-D maps of rooms using graph paper, rulers, plum bobs and lines. He offers the following story of a vessel with a horse painted onto it that he found in a pre- Columbian Maya tomb, as well as his archeological team’s reaction to this finding. He states as follows:

I was drawing from a pot that we found in a tomb ... I was on top and I was digging and my hand falls through the floor of this noble’s house that we were working on. Again, with this guy Alejandro. And I was like, ok, too freaky. And I pulled my hand out and I’m like, “Ok, is this whole thing going to collapse?” Right, and I kind of shimmied back off of it. And of course, if it was a burial, we had to call the professors who gave themselves the authority as to whether or not we were going to go move on. It was in the 1980s before the local people decided, you know, as it is today. And so, they came in there. Because I was the one who “discovered it.” I was the one allowed to go down into the tomb with the [lead] archeologist ... So, down there, like in some of the other burial areas that we found, they always had bones and vases and things like that. And so, this vase, for lack of a better term, I’m not sure what it would actually be called maybe but they called them all vessels. It just means something that carries something, right? And so, there would usually be a block, a ledge, and that was the bed. And then there would be a person on that ledge, and that was usually the eldest person buried on a particular tomb, and then the others would be laid out on the floor and so forth, and vases would be

³⁹⁴Ibid.

³⁹⁵Ibid.

put into these tombs. And then it would be closed off and a new house would be built on top. And this would happen every few generations. A new house would be built and the former house becomes the tomb for the next, you know, for the previous generations of people. And so, on this, and these are vague memories ... things remembered in 1987, I think or something like that. Maybe '88 ... on this vase, as on most of them, were painted designs. These designs were usually pretty regular and they were always usually pretty faded for obvious reasons. These were quite old. This stuff was anywhere from 800 to 1200 years old usually. And on this one vase that was broken, a lot of times you would find things broken, even bones sometimes would be moved and scattered. How, I don't know, but somehow ... And so, I was drawing this one, and there was this quadruped, let's just say that, on the vase, that you know, after spending many months in the jungles of Belize and Guatemala, I'd never seen anything like this. OK, there were no buffalo, or bison, there were no large deer, or other kinds of bovine-type creatures. The only things that were horse-like were, well, horses, mules, donkeys. Ok, burros, of course ... And the only thing that that animal could have represented in my head was a horse ... the dimensions, the head, the elongated face, these kinds of things ... This looked like a four-legged, well, it looked like a horse. I can't say that it was; I can't prove that it was. When I did make the one mention of it, the graduate student who was overseeing the lab as I was working ... I said, "It looks like a horse, it's got to be a horse." And I was basically, you know, she was older and was a grad student and I was an undergrad, and she was like, "There were no horses here. Horses were all extinct by the time that Europeans came." And I thought, "Well, this is from well before Europeans came. How do we know when they went extinct?" You know, I was young and I didn't talk back, so to speak, and so that was the end of that ... This was a four-legged creature, and this four-legged creature did not have the proportions of any four-legged creature that I know of beside a horse." ³⁹⁶

6.3 Fossils Remains

As outlined earlier within this paper, up until the mid-1800s the dominant Western culture claimed that there were no horses – and had never been any horses – in the Americas prior to the arrival of the Spanish to the Caribbean Islands in 1493 and to the mainland in 1519. In fact, it was not until Joseph Leidy's work titled *On the Fossil Horse of America* was published in 1847 that Western Academia began to accept the idea that the horse had existed on the North American continent before the arrival of the Spanish conquistadors. However, upon this acceptance, they became adamant that the extinction of *Equus* in the Americas must then have occurred many thousands of years prior to first European contact. They came to this new conclusion without scientific proof. In the article "Meeting for Business, Sept. 28, 1847; On the Fossil Horse of America; Description of New Species of Squalides from the Tertiary Beds of South Carolina," Joseph Leidy and Robert W. Gibbes describe Western Academia's response to

³⁹⁶ Koskey, personal communication, October 18, 2016.

their findings and mention their perplexity regarding the conditions that would have caused *Equus* to become extinct in the Americas:

The fact of the existence of fossil remains of the horse in America has been generally received with a good deal of incredulity, arising perhaps, from the mere fact being stated of there having been found, often without even mentioning the associate fossils, and in all cases, previous to Mr. Owen, without describing the specimen. At present their existence being fully confirmed, it is probably as much a wonder to naturalists as was the first sight of the horses of the Spaniards to the aboriginal inhabitants of the country, for it is very remarkable that the genus *Equus* should have so entirely passed away from the vast pastures of the western world, in after ages to be replaced by a foreign species to which the country has proved so well adapted; and it is impossible, in the present state of our knowledge, to conceive what could have been the circumstances which have been so universally destructive to the genus upon one continent, and so partial in its influence upon the other.³⁹⁷

Indeed, only a decade earlier, naturalist Charles Darwin also found fossil remains of the horse together with mammoths in what is now Buenos Aires in Argentina, South America. John Van Wyhe's work titled *The Complete Work of Charles Darwin Online* explains the following regarding his experience:

He could not excavate the case from the bed which was "unquestionably ... above the limestone" but in compensation he "found tooth of horse," ... This was a puzzling find. It was believed at the time that there had been no horses in the Americas before Europeans brought them over in the sixteenth century. Darwin wondered if the tooth had been "washed down"? ... This little tooth had great significance for Darwin...the state of preservation – "compelled" him to believe that the horse was contemporaneous with the extinct *Mastodon*. Owen, in *Fossil Mammalia*, was able not only to confirm that Darwin had indeed found remains of *Mastodon*, but also that the horse tooth, and the one he found in Darwin's collection from Punta Alta, was a pre-Columbian *Equus curvidens*, proving that horses had existed but gone extinct in the Americas before re-introduction from the Old World.³⁹⁸

However, the power of the Western claim that there were no horses within the Americas before the arrival of the Spanish was hypnotic. Even Darwin, himself, returned to this as his reference point despite the fact that the data he gathered from the above discovery proved the pre-Columbian existence of the horse, not its extinction. However, the same issues confused him

³⁹⁷ Joseph Leidy and Robert W. Gibbes. "Meeting for Business, September 28, 1847; On the Fossil Horse of America; Description of New Species of Squalides from the Tertiary Beds of South Carolina." *Proceedings of the Academy of Natural Sciences of Philadelphia* 3, no. 11 (September - October 1847): 262-263. <http://www.jstor.org/stable/4058414>.

³⁹⁸ John Van Wyhe, *The Complete Work of Charles Darwin Online*, 2002, <http://darwin-online.org.uk/AboutUs.html>.

as had perplexed Liedy. What would have caused the horse to become extinct, especially when the population of horses that were brought over by the Spanish seemed to explode at an unprecedented rate due to the favorable environmental conditions?³⁹⁹ As Darwin's quest for answers had no logical conclusion, the mystery regarding the horse in the Americas led to his development of a new theory regarding extinction. Van Wyhe states as follows:

Thus extinction for Darwin in *Origin* was merely what happens when the number of organisms in a species dwindles to an unsustainable level due to unfavorable conditions of life (he did not complicate the discussion by mentioning "pseudo-extinction," when one species has evolved into another species and therefore ceases to exist.) Furthermore, Darwin argued, it is usually impossible to be sure exactly when the unfavourable conditions were, and this argument must apply in the case of the horse in pre-Columbian America. In other words, Darwin had come to accept Lyell's gradualistic view of extinction, in which the case of the horse in America was not unexpected.⁴⁰⁰

However, there are early instances where Western-trained scientists published their conclusions that the horse, in fact, had not become extinct in the Americas during the last Ice Age. This was based upon records that were kept from some of the very first explorers. An example of this can be found in the article titled "The American Horse" by E. L. Berthoud in 1881 within the *Scientific American Supplement*, Vol. XII. Here he speaks of a map created by the Venetian explorer Sebastian Cabot, "*Piloto Mayer*" of Charles the Fifth, King of Spain. He explains as follows:

This map, drawn in a circular projection by Cabot himself, on which he has delineated his own and the discoveries of John Cabot, is of singular value as representing the true state of geography and discovery in the early portion of the sixteenth century, and was drawn prior to the year 1546-47 ... Now it is an incontestable fact that Cabot went in 1527 to the east coast of South America on an exploring voyage, that he discovered the rivers La Palata and Panina, and explored them some distance inland, returning to Spain in 1530 ... in addition he has marked on the map pictures of the natives, prominent animals, and some trees, and that at the head of La Plata, with the Puma and the Parrot, or perhaps the Condor, he has given the horse as apparently a quadruped that existed then in those vast plains of the Gran Chaco, where today they roam in countless herds. It may be claimed that this is not proof of their native origin; but we claim that it is a fair presumption, for neither Spaniards in Peru or other parts of America, nor even Portuguese, had been long enough in South America for the few Spanish horses introduced to have roamed wild from Peru to the head of Paraguay and Parana rivers, and increased in numbers sufficiently to have attracted the attention of the Spanish explorers. The period was too short and the distance too great from the Spanish possessions in Peru across the vast

³⁹⁹ Martin, *Twilight of the Mammoths*, 194.

⁴⁰⁰ Van Wyhe, *The Complete Work of Charles Darwin*, <http://darwin-online.org.uk/AboutUs.html>.

forests of the Andes, for such a rapid increase. We can reconcile this discrepancy only by believing that the paternity of the vast herds of the Argentine Republic and of Paraguay was a native breed of America horses; mixing afterward with the Spanish breed introduced by the conquerors.⁴⁰¹



Figure 10 Detail of Cabot's map (1533).⁴⁰²

This claim that “certain wild horses found in the Argentine in 1530 could not have been introduced, and must have accordingly been indigenous” was also cited in Lydekker’s encyclopedic book series titled *The New Natural History*. However, he immediately follows such mention with this sentence: “...there is no evidence to show that the horses in question were identical with *E. caballus*, of which fossil remains appear to be unknown in the New World south of Alaska.”⁴⁰³ He quickly circles back to the fact that fossilized horse remains are “common in the brick-earths, cavern-deposits, etc. of England and the Continent.”⁴⁰⁴

However, data collected from the interview with Oviedo (*Western Trained Scientist, Caretaker, and Scholar*) supports the likelihood of Sebastian Cabot’s claim that the horse already existed in the Americas upon his arrival in South America. As quoted in Chapter 4 he described the “*Ganado Caballar*,” or “horse-like livestock” that he observed as a child in Veracruz, Mexico. He recalls as follows:

⁴⁰¹ E. L. Berthoud, “The American Horse,” *Scientific American Supplement*, no. 311 (July-December 1881), 4963.

⁴⁰² Austin Whittall, “Extant Native American Horses, Part II,” *Patagonia Monsters: A Guide to Patagonia’s Mythical (and Real) Monsters and Legendary Beast*, May 9, 2013, http://patagoniamonsters.blogspot.com/2013_05_01_archive.html, 16.

⁴⁰³ Richard Lydekker, *The New Natural History*, vol.2 (New York: Merrill & Baker, 1901), 492.

⁴⁰⁴ *Ibid.*, 492.

We were ... passing these patches of jungle and patches of coffee plantations and and I saw these little horses. They looked like goats ... And I asked my uncle who was a horse person, my *Tio Ernesto*, what kind of animal [it was]? He said it's *Ganado Caballar*. He didn't put it like horses, he put it like it's a cattle-type of horse, *Ganado Caballar*. It's hard to translate but they're wild. Like I say, they're too little, we cannot use it to work or anything like that, but they're wild there. You can hunt there or something like that, but we don't hunt them. They just live there. So, that was the first time I understood that there was a totally Native wild horse and this was like in 1956, or something like that. Yeah, 1955, '56, '57 I went looking for these and they were in the brown colors, all the time with stripes in the legs or on the top. Coarse hair ... You're talking about an animal that is less than 13 hands.⁴⁰⁵

Throughout the text by Francis Augustus MacNutt titled *De Orbe Novo: The Eight Decades of Peter Martyr D' Anghera*, the Chronicler for the King of Spain writes of the time period in the Americas that covered the early accounts to 1600 – the beginning years of the conquest. Throughout this text he notes the presence of quadrupeds. When asked whether the “*Ganado Caballar*” could have been these quadrupeds to which the Chronicler referred he explained as follows:

Yeah, it feels like the same thing ... My uncle never said they were horses, they say instead of “quadrupeds” like you are using ... they say “*Ganado Caballar*.” You know, it's another type of cattle. “*Ganado*” is cattle or ... Something like that but he never said they were horses ... They were horses for sure. I saw those things very close. I spent my vacations when I was little I would just go over there and sit almost immobile until my legs were totally asleep and see those things close, they were little horses... [But] no, the [Spanish didn't] know what they were because I talked to different people, like the professional people that put the museum *de Antropologia en Mexico* [together]. One of my aunts was one of the founders. And there was this guy that knew a bunch about the *conquista* and he said the conquistadores were noisy people. With all that protection on the horses and all those stirrups and helmets and everything they make a racket so everything moved out. So, I really doubt that these people saw those things really close.⁴⁰⁶

Shortly after the publication of Berthoud's article in the *Scientific American Supplement* in 1881, the book titled *The Hill-Caves of Yucatan: A Search for Evidence of Man's Antiquity in the Caverns of Central America* was also published. It is a compilation of Henry C. Mercer's archeological explorations on behalf of the University Museum, University of Pennsylvania in 10 of the 29 “large, dry caves in a small range of hills in Central Yucatan.”⁴⁰⁷ His intent was to

⁴⁰⁵ Oviedo, personal communication, August 20, 2016.

⁴⁰⁶ Ibid.

⁴⁰⁷ Mercer, *The Hill-Caves of Yucatan*. 14.

“determine whether the Yucatan had ever been occupied by any people other than the Maya.”⁴⁰⁸

Mercer describes the purpose of his research as follows:

If these caves, as Professor Heilprin informed us, contained aboriginal carvings on their walls, and showed signs of human habitation on their floors, they would by all past experience, and better than speculation from Spanish chronicles, answer the first question we asked[:] How long had man lived in the Yucatan?⁴⁰⁹

Mercer and his team’s excavation of these caves yielded horse remains, such as “horses’ teeth”⁴¹⁰ ... and “[the] first phalanx,” in deep layers within two caves.⁴¹¹ This, along with the type of “rarer pottery” (cave 1) and “frequent polished potsherds of fine make” (cave 2) that were found within those same layers, would indicate a pre-Columbian time period when the Indigenous Peoples of the area and the horse were together. Instead, Mercer deduces that “fragments of horse-teeth probably indicat[e] European contact”⁴¹² (cave 1) and that “the horse, under the circumstances, must have been modern and Spanish.”⁴¹³ (Cave 2) Due to the fact that correct dating technology was not available at that time, these remains were not dated.

In his book titled *Faunal and Archeological Researches in Yucatan Caves*, Hatt continues on from where Mercer “left off” by creating a detailed cataloguing and report of the excavations that he and his team performed in Yucatan caves during 1929 and 1947. He too located *Equus* remains. However, as he had not scientifically dated the remains, he does not make a final determination as to how the presence of *Equus* does or does not affect the archeological site. He states the following:

The only pre-Conquest qualitative faunal changes indicated in the cave deposits are the disappearance of a ground sloth (*?Paramylodon*), a tree rat (*Tylomys*), and a horse (*Equus ?conversidens*) ... Each of these animals is represented only in a deposit unassociated with evidence of man, and their disappearance from the fauna may have long antedated the arrival of man. The horse, from deposits which contain potsherds and an ox bone, but possibly as intrusives, is identified on material too inadequate to permit generalizations, but if it is correctly identified as a pre-Columbian horse, it suggests not only a more open vegetation but also a very early date for its occurrence, since the Maya did not represent

⁴⁰⁸ Robert T. Hatt, *Faunal and Archaeological Researches in Yucatan Caves* (Bloomfield Hills, MI: Cranbrook Institute of Science, Bulletin 33, 1953), 5.

⁴⁰⁹ Mercer, *The Hill-Caves of Yucatan*, 14.

⁴¹⁰ Ibid., 40.

⁴¹¹ Ibid., 69.

⁴¹² Ibid., 40.

⁴¹³ Ibid., 69.

horses in their sculpture or paintings, and had no knowledge of horses at the time of the Conquest.⁴¹⁴

However, further investigation and analysis was performed at the site of *Mayapan* on the Yucatan Peninsula, which dates to a few centuries before the Spanish arrived, and the cenote *Ch'en Mul*. Below, it has been confirmed that some of the horse remains discovered were likely, in fact, pre-Columbian as the two horse teeth were “in the bottom stratum in a sequence of levels of unconsolidated earth almost two meters in thickness ... [and] partially mineralized, indicating that they were definitely ancient and could not have come from any Spanish animal”⁴¹⁵ (Journal of Book of Mormon Studies, 2001). Clayton E. Ray’s article in *The Journal of Mammalogy* states the following regarding these findings:

It is now possible to report horse remains of probable pre-Columbian age from a new locality in the Yucatan. This material consists of one complete upper molar and 3 fragmentary lower molars, all preserved in the Museum of Comparative Zoology (Cat. No. 3937). The teeth consist of part of a large collection of vertebrate remains obtained by archeologists of the Carnegie Institution of Washington during excavation of the Mayan ruins of *Mayapan*, Yucatan (20°38'N., 89°28'W.). This collection was submitted to the author for identification, and a checklist of the material is in preparation. The horse teeth were collected in cenote *Ch'en Mul* (Section Q, topographic map of the ruins of *Mayapan*, Jones, Carnegie Inst. Washington, Dept. Archeology, Current Rept. 1, 1952) from the bottom stratum in a sequence of unconsolidated earth almost 2 meters in thickness. As in the deposits reported by Mercer and Hatt, pottery occurs throughout the stratigraphic section. The horse teeth are not specifically identifiable. They are considered to be pre-Columbian on the basis of depth of burial and degree of mineralization ... It is by no means implied that pre-Columbian horses were known to the Mayans, but it seems likely that horses were present on the Yucatan Peninsula in pre-Mayan time. The tooth fragments reported here could have been transported in fossil condition as curios by the Mayans, but the more numerous horse remains reported by Hatt and Mercer (if truly pre-Columbian) could scarcely be explained in this manner.⁴¹⁶

As Farley’s life’s work focused specifically on the pre-Columbian presence of horses in the Americas (specifically North America), she provides a number of examples to show the difficulty involved in getting scientists to stop deferring to past authority and open their minds to the possibility of allowing the data to tell a fuller story of the history of the horse in the

⁴¹⁴ Hatt, *Faunal and Archeological Researches*, 46.

⁴¹⁵ “Out of the Dust.” *Journal of Book of Mormon Studies* 10, no. 1(2001): 1., <http://publications.mi.byu.edu/publications/jbms/10/1/S00015-50be48ece359c15OutoftheDust.pdf>.

⁴¹⁶ Clayton E. Ray, “Pre-Columbian Horses from Yucatan,” *Journal of Mammalogy* 38, no. 2 (May 27, 1957): 278, <https://doi.org/10.2307/1376338>.

Americas. To illustrate her point, she includes the discovery of a horse skull in a pre-Columbian Wisconsin Indian burial mound in 1956. She explains as follows:

Five workers at the site testified the skull was inclusive, that is, it was buried with the rest of the original material and could not have been introduced to the site later. But this evidence was clouded several years later by the statement of a man who said he had “planted” the horse skull in the mound in 1928. He also said that this skull had no lower jaw. But the excavated skull had “a lower mandible, tightly articulated with the cranium,” according to the archeologist who made the excavation. Scholars proposed to settle the issue by carbon-14 dating. Testing was performed by two universities in 1964. Interested parties waited two years for the report. But when it was released, it gave only the dates of charred wood and bone found in the mound as 490-1100 A.D., and 750-900 A.D., respectively. A professor at one of the universities speculated that the omission occurred because the skull was thought to be a hoax. Mertz concludes that one must either assume that there were two skulls in two mounds, or that one skull had grown a jawbone between 1928 and 1936. It is her opinion that the incomplete reports were based on the premise that for thousands of years prior to Spanish Conquest horses did not exist in America.⁴¹⁷

However, there have been modern discoveries that have compelled archeologists to pause and “take a second look” because the timeframe determined scientifically and the surrounding clues clearly do not match the dominant culture’s version of history. An example of this occurred in Carlsbad in 2005 when archeologists unearthed and radiocarbon dated a nearly intact skeleton of a horse that “may have lived and died 50 years before the Spanish began their conquest of California” and had been buried ritualistically.⁴¹⁸ The article titled “Centuries-old Bones of Horses Unearthed in Carlsbad” by Philip K. Ireland states as follows:

The finds are significant because native North American horses were thought to have been extinct more than 10,000 years ago, and the remains are older than the recorded conquests by the Spanish ... Radiocarbon dating of 340 years, plus or minus 40 years, puts the death of the horse sometime between 1625 and 1705 ... therefore the horses died at least 50 years before San Diego Mission de Alcala, the first of the California missions, was founded in 1769 ... the bones of the horses and the donkey showed no signs of having been shod, an indicator that the horses were not brought by the Spanish, who fitted their horses with iron shoes.⁴¹⁹

⁴¹⁷ Farley, *In Plain Sight*, 340.

⁴¹⁸ Philip K. Ireland, “Palomar Students Help Excavate Pre-Portola Horse Burial: Centuries-Old Bones of Horses Unearthed in Carlsbad,” *North County Times*, last modified July 16, 2005, <http://www.palomar.edu/archeology/horseburial.htm>.

⁴¹⁹ Ibid.



Figure 11 Unearthed Horse Skeleton in Carlsbad, California.⁴²⁰

Other instances where carbon dating was utilized to test the age of horse bones occurred in a study led by Dr. Steven Jones, Professor Wade Miller, Joaquin Arroyo-Cabrales, Patricia M. Fazio, and Shelby Saberon. In this study, Accelerator Mass Spectrometer (AMS) dating methods were utilized. “The goal was to provide radiocarbon dates for samples that appeared from depth and other considerations to be pre-Columbian”⁴²¹ The following independent laboratories were utilized to conduct the AMS dating process: Stafford Laboratories in Colorado, the University of California at Riverside, and Beta Analytic in Miami, Florida. According to Jones the following samples of *Equus* that were found in North America were verified as being within the time frame

⁴²⁰ Ibid.

⁴²¹ Jones, “Were There Horses in the Americas Before Columbus?”, 1.

that extends from 10,000 BP (after the last Ice Age) to 500 BP (when Spaniards began bringing horses to the Americas):

The first of these was found in Pratt Cave near El Paso, Texas, by Prof. Ernest Lundelius of Texas A&M University ... [He] provided a horse bone from Pratt Cave which dated to BC 6020-5890. This date is well since the last ice age, into the time frame when all American horses should have been absent according to the prevailing paradigm. Another *Equus* specimen was identified by Elaine Anderson, an expert in *Equus* identification, at Wolf Spider Cave, Colorado. It dated to AD 1260-1400, again clearly before Columbus... Dr. Fazio ... alerted us to a horse bone found at Horsethief Cave in Wyoming which dates to approximately 3,124 BP, i.e., 1100 BC, using thermoluminescent methods. We attempted to have this bone re-dated using the AMS methods which are more accurate, but there proved to be insufficient collagen in the bone to permit AMS dating. The 1100 BC date (although approximate) still stands.⁴²²

Another modern *Equus* discovery in which the horse remains that were scientifically dated fell within the supposed “extinction period” occurred with the uncovering of a horse skeleton in Southwestern Wyoming which appeared to be partially buried by Native Peoples. In the article “An Early Historic Period Horse Skeleton from Southwestern Wyoming” by David Eckles, Jeffrey Lockwood, Rabinder Kumar, Dale Wedel, and Danny N. Walker, the remains of a single horse were discovered in an area that also contained other prehistoric remains. However, as the radiocarbon dates do not match up with the dates that Spanish horses could have possibly made their way to Wyoming from Mexico, they interpret their findings to match the Western Academic version. They explain as follows:

These radiocarbon dates place the horse skeleton at a very early age for modern horses to have been in Wyoming. The range of dates suggested is between A.D. 1426-1481 (one standard deviation) and A.D. 1400-1633 (two standard deviations) ... The “modern” bone date suggests an age less than 300 years (less than A.D. 1650) but bone tends to date younger compared to other materials.⁴²³ Given the history of European exploration and settlement in North America after 1492, it is next to impossible to expect horses to have been present in Wyoming before the major Spanish exploration in the Southern Plains of the mid 16th century or even the Spanish settlement in New Mexico in the early 17th century ... Therefore, it may be concluded that the more accurate date of these horse remains is toward the end of the documented radiocarbon age, i.e., the mid-1600s.⁴²⁴

⁴²² Ibid.

⁴²³ Murray A. Tamers and F.J. Pearson, “Validity of Radiocarbon Dates on Bone,” *Nature* 208 (1965), 1053-1055., **quoted in** Eckles, et al., “An Early Historic Period Horse Skeleton from Southwestern Wyoming,” *The Wyoming Archaeologist* 38, no. 3-4 (1994): 56-57.

⁴²⁴ Eckles, et al., “An Early Historic Period Horse Skeleton from Southwestern Wyoming,” *The Wyoming Archaeologist* 38, no. 3-4 (1994): 56-57.

As was mentioned in a previous chapter, scientific evidence of *Equus* was also found during the proposed extinction period in a study called *FAUNMAP: A Database Documenting Late Quaternary Distributions of Mammal Species in the United States*. This study, headed by Graham and Lundelius, Jr., was published by the Illinois State Museum in 1994. Its purpose was to create a “synthetic database ... to document the late Quaternary distribution of mammal species in the 48 contiguous states of the United States for the last 40,000 years.”⁴²⁵

Scientific evidence of *Equus* remains were found in a variety of soil and fossil samples taken at various archeological sites throughout North America outside of the time periods accepted by Western science. These sites were located in the following states: Arizona, Colorado, Georgia, Kentucky, Montana, North Dakota, New Mexico, New York, Ohio, South Dakota, Washington, and Wyoming. Interestingly, researchers later categorized many of these findings of *Equus* as “OUT”, which they define to mean “unit of finding questionable.”⁴²⁶ However, the following findings of *Equus* are categorized as “IN”:

Data base No. 494, site name “Amahami”, HIHO (0-4500 B.P.), location, North Dakota;
Data base No. 419, site name “H.P. Thomas”, HIHO (0-4500 B.P.), location, South Dakota.⁴²⁷

There were eight findings of *Equus* during the LHOL (Late Holocene Period), (450-4500 B.P.); seven findings in the HIHO (Post Columbian/Late Holocene Period),(0-4500 B.P.); two findings in the MHOL (Middle Holocene Period), (3500-8500 B.P.); and three findings in HOLO (0-10,000 B.P.) The findings later defined as “OUT” meaning “unit or finding questionable” are as follows:

Data base No. 1187, site name “Awatovi”, HIHO (0-4500 B.P.), location, Arizona; Data base No. 1145, site name “Ventana Cave”, LHOL (450-4500 B.P.), location, Arizona; Data base No. 1145, Site name “Ventana Cave”, HIHO (0-4500 B.P.), location, Arizona; Data base No. 593, Site name “Fort Davy Crockett”, HIHO (0-4500 B.P.), location, Colorado; Data base No. 610, site name “Kin Ti’ish”, LHOL (450-4500 B.P.), location, Colorado; Data base No. 667, site name “Long House” LHOL (450-4500 B.P.), location, Colorado; Data base No. 599, Site name “Merino”, LHOL (450-4500 B.P.), location, Colorado; Data base No. 2325, site name “Cemochechobee”, LHOL (450-4500 B.P.), location, Georgia; Data base No. 806, site name “Big Bone Lick Ken-1”, HOLO (0-10,000 B.P.), location, Kentucky; Data base No. 588, site name “Blacktail Cave” MHOL (3500-8500 B.P.), location, Montana; Data base No. 374, site name “Hoffer”, HIHO (0-4500 B.P.), location, Montana; Data base No. 576, site name “Shield Trap”, LHOL (450-

⁴²⁵ Graham and Lundelius, Jr., *FAUNMAP*, 3.

⁴²⁶ Ibid.

⁴²⁷ Ibid.

4500 B.P.), location, Montana; Data base No. 1473, site name, “Navajo Reservoir Site LA 3430”, LHOL (450-4500 B.P.), location, New Mexico; Data base No. 2137 site name “Dutchess Quarry Cave”, HOLO (0-10,000 B.P.), location, New York; Data base number 2352, Site name “Kettle Hill Cave” HOLO (0-10,000 B.P.), location, Ohio; Data base No. 959, site name “Ft. Randall Historic Site”, LHOL (450-4500 B.P.), location, South Dakota; Data base No. 1424, site name “Chief Joseph Dam Site 45OK258”, HIHO (0-4500 B.P.), location, Washington; Data base No. 235, site name “48 UT370”, MHOL (3500-8500 B.P.), location, Wyoming.⁴²⁸

The methodology these researchers utilized regarding the selection of the age categories for each sample is described as follows:

Evaluation of, and decisions about, assignment of an Analysis Unit to a temporal category in Resage were not always straightforward. If an Analysis Unit was predominantly incorporated in one Resage category but overlapped slightly with another, it was necessary to decide whether it should be assigned to the predominant time category or whether it should be lumped into both categories. For example, if an Analysis Unit had minimum and maximum ages of 2100 years B.P. and 4300 years B.P., respectively, it was predominantly in the Late Holocene but overlapped slightly with the Middle Holocene. To resolve these issues, it was decided that if the overlap was less than 500 years, then the Analysis Unit would be assigned to the predominant category (e.g., Late Holocene in this case). If the overlap was greater than 500 years, then the Analysis Unit was referred to a combined time category (e.g., Late/Middle Holocene). For the boundary between the Post-Columbian and Late Holocene, an overlap of 50 years was used.⁴²⁹

In the article titled “Canada’s Last Wild Horses,” Dr. Robert M. Alison also references the following fossil finds that fall outside of the Western Academic proposed extinction period. He states as follows:

... a bone found near Sutherland, Saskatchewan, at the Riddell archeological site suggests some horses might have survived much later [than the proposed extinction period]. The bone (Canadian Museum of Nature I-8581), has been tentatively dated at about 2900 years ago. Another *Equus* sp. Bone, found at Hemlock Park Farm, Frontenac County, Ontario, dates to about 900 years ago. Exhaustive confirmation of both bones has yet to be completed, but if they prove to be authentic, they comprise evidence that horses survived in Canada into comparatively modern times.⁴³⁰

In his article titled “The Horse and Burro as Positively Contributing Returned Natives in North America,” Downer also highlights examples of fossil evidence to support the idea that

⁴²⁸ Ibid.

⁴²⁹ Graham and Lundelius, Jr., *FAUNMAP*, 25.

⁴³⁰ Robert M. Alison, “Canada’s Last Wild Horses,” Wayback Machine, August 19, 2000, <https://web.archive.org/web/20150129164810/http://members.shaw.ca/save-wild-horses/Research%20Paper%20-%20R.%20Alison.htm>, 1.

horses did survive the Ice Age in the Americas. Downer highlights scientific dating performed at the Shield Trap fossil site located in Carbon County, Montana. He explains as follows:

Here four strata have been excavated. In Stratum I, part of the late Holocene period, carbon dating from bone collagen samples (collagen consisting of the fibrous albuminoid component of bone) from two different horses has yielded precise edge dates of 1745 and 1270 YBP [years before present]. In stratum II, dating between 5490 and 2185 YBP, four different individual horse dates have been obtained. Three of these were again obtained from bone collagen, as well as from cartilage and other connective tissue types. These dated at 3190, 2675 and 2185 YBP. A fourth horse C-14 dating was done from charcoal associated with the fossil and produced the extraordinarily young date of 620 YBP, indicating the distinct possibility of horse presence in North America just over a century prior to Columbus's arrival in America ... In Stratum III of the Shield Trap fossil site, seven C-14 datings again reveal horse presence at later dates than is recognized by mainstream paleontology. Stratum III extends from 7540 to 5490 YBP and is in the Middle Holocene period. C-14 dates obtained from charcoal from five horses yielded dates of 7540, 7540, 7540, 7165 and 7165 YBP, while the two horse fossils that were C-14 age dated from bone collagen yielded 7245 and 5490 YBP. The 5490 YBP age dating is remarkable and substantiates a later survival of the horse in North America ...⁴³¹

These dates “indicate a much wider horse distribution and at much later dates than is commonly accepted by mainstream paleontologists today.”⁴³² Given this, Downer concludes as follows:

The horse fossil series at Shield Trap gives solid evidence for continuous horse lineage from the time of the “Great Die Out” at the close of the Pleistocene to modern times, i.e., after the advent of Columbus and the European colonization of the Americas.⁴³³

6.4 DNA Analysis and Other Genetic Work

There have been a great many technological advances within Western science since Dr. Leidy's publication regarding the finding of *Equus* fossil remains in North America in 1847. These advances have the potential to open a world of possibilities with respect to deconstructing – and reconstructing - the history of the horse in the Americas. Yet, very little attention and/or resources from the Western scientific community have been directed toward this endeavor.

In fact, in their work titled *Horse Genetics*, 2nd edition, Bailey and Brooks are clear that no matter how “rapid” technological advances may be, further research cannot be conducted unless it can be financially supported. They explain that currently the majority of equine genetics

⁴³¹ Downer, “The Horse and Burro,” 3-4.

⁴³² Ibid., 4.

⁴³³ Ibid.

research has been focused on identifying “coat color genes” and identifying equine markers for speed, as breeders and wealthy horse owners have been willing to fund such research to date. Clearly, although the impetus to support the research and “ask the question” is present for personal reasons, the scientific research outcome, when executed objectively, “is what it is” and the data can be used to progress in the field. Here, they address this topic and encourage horse owners to continue to support such research being done:

The techniques for investigating DNA continue to evolve. The methods used two years ago have been replaced. The methods we use today are likely to be eclipsed by newer, less costly approaches. Science technology moves rapidly... Tests have been developed and will continue to be developed, for a wide range of traits. So far, many of the traits have been coat color genes. The genetics of coat color are well understood and breeders are interested in having such tests⁴³⁴... With the current interest in genetics and the new technologies available for looking at genes at the molecular level, information about the inherited traits of horses is likely to increase significantly in the next decade. Horse owners can help with the process in several ways, including communication with granting agencies about specific problems of interest to them, providing money to fund the research, and providing information and tissue samples to funded research studies.⁴³⁵

Indeed, this is corroborated throughout the book edited by Bhanu P. Chowdhary titled *Equine Genomics*. He states the following:

While sitting in a researcher’s chair, it would be easy for me to glorify the work of my colleagues worldwide and attribute the success to them. However, in all honesty, the credit goes much beyond this small, yet dedicated, group. The progressive community of horse owners, the scientifically demanding yet generous funding agencies – federal, state, and private – the ever approachable and helping clinicians, the increasingly open-minded breed association, the highly supportive foundations, and the unrelenting horse enthusiasts worldwide have played a vital role in converting the ‘unthinkable’ into ‘possible.’⁴³⁶

In their book titled *Horse Genetics*, Bailey and Brooks offer a concise summary of the evolution of technology with respect to the fields of equine genetics and genomics. They state as follows:

The Human Genome Project began in 1990 with the goal of sequencing all of the DNA that exists in a human cell by 2005. It was a bold plan ... The technical challenges were awesome. The capacity to organize and sequence 3 billion bp of DNA did not exist; the amount of information generated would exceed the capacity of computers and computer programs to analyze and organize. Clearly the initial task for the human genome project

⁴³⁴ Bailey and Brooks, *Horse Genetics*, 31.

⁴³⁵ Ibid., p. 145.

⁴³⁶ Bhanu P. Chowdhary, *Equine Genomics* (West Sussex, U.K.: Wiley-Blackwell, 2013), xi.

was to invent new technologies. By 1997, only 3% of the human genome had been sequenced. However, DNA sequencing machines were invented through the process that led to completion of the first draft by 2001, and the entire project by 2003, some two years ahead of schedule ... Once the human genome was sequenced, however, scientists realized that unless they had something with which to compare their human genome sequencing information, they could not decipher its meaning. Therefore, they made the decision to turn their resources toward mapping other mammals ... In October 1995, a horse genome mapping workshop was held in Lexington, Kentucky to make a plan for mapping the horse genome – the Horse Genome Project. At the time, no single laboratory had the resources to map the horse genome. Therefore, a group of approximately 100 scientists from 25 laboratories around the world met at annual workshops, shared information, and methodically created a map that led to many discoveries that are part of this volume ... [Finally,] ... The horse genome was sequenced at the Broad Institute of MIT and Harvard at Boston, Massachusetts as part of a project by the NHGRI. A Thoroughbred mare, named Twilight, was chosen for genome sequencing. Twilight was part of a research horse herd at Cornell University in New York State...⁴³⁷

Despite not having firm, scientific proof, Western science and academia are still adamant regarding their claim that the indigenous horse of the Americas became extinct during the Wisconsin Glaciation period. Yet, it is clear that the “how and why” of this extinction still eludes them. Examples of this are found throughout this paper. Bailey and Brooks also refer to this conundrum:

... *Equus* became extinct in the Americas about 12,000 years ago but continued to live on the Eurasian and African continents ... It is unknown why all of the representatives of *Equus* became extinct in North America but continued to live elsewhere, although species of *Equus* were among many large mammalian species that perished in the same period. Both climate change and predation by people are suspected.⁴³⁸

Despite the fact that this “theory of extinction” is not scientifically supported, most scientific researchers continue to utilize this theory as a base-line for their studies. Ernest Bailey and Matthew Binns preface their scientific findings with the following within their article titled “The Horse Gene Map”:

The horse evolved in North America approximately 3.5 to 5 million [years] ago and migrated to the Asian/European continent across the Bering Strait before becoming extinct in the Americas between 20,000 and 10,000 years ago.⁴³⁹ The horses and

⁴³⁷ Bailey and Brooks, *Horse Genetics*, 27-30.

⁴³⁸ Ibid., 3.

⁴³⁹ George Gaylord Simpson, *Horses*. (New York: Oxford Press, 1951), **quoted in** Ernest Bailey and Matthew Binns. “The Horse Gene Map.” *ILAR Journal* 39, no. 2-3 (1998): 171. <https://doi.org/10.1093/ilar.39.2-3.171>.

donkeys populating North America today are descendants of those reintroduced from Europe, Africa, and Asia over the last 500 years.⁴⁴⁰

To date, Western scientists have expressed difficulties in locating *Equus* fossils (of the time period in question) that have enough collagen available to genetically test.⁴⁴¹ Yet, some scientists have developed methods to date genetic remains that may prove revolutionary. By collecting and analyzing soil samples, scientists in a 2009 Yukon-based study aimed at understanding more about extinction showed that “ancient American horses may have been grazing the North American steppe for several thousand years longer than previously thought.”⁴⁴² As is explained in the article titled “Mammoths Hung on Longer? Late-surviving Megafauna Exposed by Ancient DNA in Frozen Soil,” scientists now have “a way around” the challenge of finding well preserved fossil samples that they can test:

... hard remains of animals are rarely preserved, difficult to find, and laborious to accurately date because of physical degradation. Because of this ... [key scientists in this study] decided to tackle the problem by dating the “last survivors” through dirt. Frozen sediments from the far north of Siberia and Canada can preserve small fragments of animal and plant DNA exceptionally well, even in the complete absence of any visible organic remains, such as bone or wood. In principle, you can take a pinch of dirt collected under favorable circumstances and uncover an amazing amount of forensic evidence regarding what species were on the landscape at the time,” says Willerslev, director of the Centre for GeoGenetics at the University of Copenhagen. “The use of ancient DNA offers the possibility of being able to sample previous life within the last 400,000 years, freeing us from having to rely on skeletal and other macrofossil evidence as the only way to collect information about species that are no longer with us.”⁴⁴³

The methodology utilized within this study, and their findings are explained in the article. It states as follows:

In order to prospect for genetic fossils, the team collected soil cores from undisturbed Alaska permafrost. Wind-blown Stevens Village, situated on the banks of the Yukon River, fit the bill perfectly. Here sediments were sealed in permafrost soon after deposition. Two independent methods (radiocarbon and optically stimulated luminescence) were used to date plant remains and individual mineral grains found in the same layers as the DNA ... the oldest sediments, dated to about 11,000 years ago, contain

⁴⁴⁰ Ernest Bailey and Matthew Binns. “The Horse Gene Map.” *ILAR Journal* 39, no. 2-3 (1998): 171. <https://doi.org/10.1093/ilar.39.2-3.171>.

⁴⁴¹ Eske Willerslev, et al., “Diverse Plant and Animal Genetic Records from Holocene and Pleistocene Sediments,” *Science* 300, no. 5620 (May 2, 2003): 791, doi:10.1126/science.1084114.

⁴⁴² American Museum of Natural History. “Mammoths Hung on Longer? Late-Surviving Megafauna Exposed by Ancient DNA in Frozen Soil.” *ScienceDaily*. December 15, 2009. <http://www.sciencedaily.com/releases/2009/12/091214151946.htm>.

⁴⁴³ Ibid.

remnant DNA of Arctic hare, bison, and moose; all three animals were also found in higher, more recent layers, as would be expected. But one core, deposited between 7,600 and 10,500 years ago, confirmed the presence of both mammoth and horse DNA.⁴⁴⁴

In fact, as scientists become more knowledgeable about working with DNA, their findings could hold the key to this “mystery.” As the article by Dan Cossins titled “Horse Genome is the Oldest Ever Sequenced” highlights, the preservation power of the Yukon permafrost, again, enabled researchers to take their genome sequencing work to a new level. He states as follows:

Researchers have generated a complete genome sequence from the bone of a horse that lived roughly 700,000 years ago ... The data represent[s] the oldest whole genome ever sequenced, almost 10 times older than the previous record ... In 2003, Orlando and colleagues unearthed a fossilized fragment of bone from the permafrost in the Yukon Territory, Canada. The bone turned out to be from the leg of a horse and was found to date from approximately 560,000 – 780,000 years ago ... For most researchers, however, the real significance of the study lies in the fact that it pushes the timeframe for paleogenomics back to almost 10 times. “Until this study, many experts would have thought it was impossible to recover a genome from a sample of this age because of the rapid degradation of DNA into ever shorter fragments that occurs following the death of an organism ... the main reason such a feat was possible is that the bone was buried in the extreme cold of the permafrost.”⁴⁴⁵

Although these researchers were initially most interested in determining whether genome sequencing could be conducted at all on such an ancient specimen, once it was completed they extended their work to provide comparisons. Researchers compared the above genome sequencing of a Middle Pleistocene horse with “a Late Pleistocene horse (43 kyr BP), and modern genomes of five domestic horse breeds (*Equus ferus caballus*), a Przewalski’s horse (*E. f. przewalskii*) and a donkey (*E. asinus*).”⁴⁴⁶ These researchers did not compare any of these findings with any “breeds” that could be considered Indigenous American horses.

6.5 Summary

A relationship with the horse was - and in many cases, still is - a critically important life

⁴⁴⁴ Ibid.

⁴⁴⁵ Dan Cossins, “Horse Genome Is Oldest Ever Sequenced,” *The Scientist Magazine*, June 26, 2013, <http://www.the-scientist.com/?articles.view/articleNo/36203/title/Horse-Genome-Is-Oldest-Ever-Sequenced>.

⁴⁴⁶ Orlando, et al., “Recalibrating Equus Evolution,” abstract.

element historically, culturally, and spiritually for many of the Peoples who are Indigenous to the Americas.⁴⁴⁷ Despite proof of this longstanding relationship, the dominant Western culture remains adamant that it is responsible for introducing the Indigenous Peoples of the Americas to the horse. This action has served as a fundamental attempt to diminish these Indigenous Peoples and their cultures by asserting a Eurocentric position of dominance. In making this claim, the dominant Western culture is saying: "Without us, you would not have these sacred and critical elements of your culture," and therefore, "Your culture is derivative of our own." The psychology behind such "factual redoing" combined with a compulsory educational system that teaches "Native history" through the eyes of the colonizer has had grave consequences for Indigenous American communities.⁴⁴⁸

As this chapter has shown, cultural bias has significantly influenced scientific researchers from the 1800s to date. The Western paradigm regarding the history of the horse has so permeated the sciences that researchers appear to utilize the simple presence of the horse in petroglyphs, pictographs, geoglyphs, and fossils as a "dating tool" on par with radiocarbon dating and other scientific means of age identification. They are so comfortable with this, and it has become so accepted, that they openly make reference to it as part of their methodology in their articles, papers, and books.

Contrary to popular belief, the Native Peoples did leave evidence of their customs, beliefs, and lifestyle practices. These "clues" can be found in the form of petroglyphs, pictographs, geoglyphs, and figurines. Likewise, caves throughout the Americas hold evidence of ancient times and the creatures who walked the earth alongside the People. Perhaps the best way to end this chapter is with a traditional *Lakota* teaching gifted from Afraid of Bear-Cook during her interview. When asked about fossil remains of relatives such as the horse, she explained as follows:

... I have never heard of bones of horses being found, because they say that if they want us to find them, that we will. But they say that the bones of our Ancestors, all of creation, they say it's powder. That's the mantle of the earth, what they call the other surface. They said we have to go seven feet into that before we ever reach Earth Mother, because [those top layers are] the bones of our Ancestors.⁴⁴⁹

⁴⁴⁷ *We Are a Horse Nation*. Directed by Keith Braveheart and Jim Cortez, (South Dakota: Sinte Gleska University Media, 2014). Film.

⁴⁴⁸ Nelson, "Historical and Contemporary American Indian Injustices," http://scholarworks.umass.edu/chc_theses/6.

⁴⁴⁹ Afraid of Bear-Cook, personal communication, September 9, 2016.

Today, western scientists, such as Willerslev, and others are now learning what the Indigenous Peoples of the Americas have been teaching their children and grandchildren for hundreds and thousands of years. Indeed, the answers to some of Western science's greatest questions regarding evolution, extinction, and history may lie within the top layers of sand, soil, and permafrost that cover our "Earth Mother."

Chapter 7

Final Analysis

“*Ponokomitta*” means “Elk Dog.” That’s how we translate it, “horses.” And [my grandmother] said, way back in the old days a man was leaving for the *Oomspahtsikoo*, the sand hills, to go and do a vision. When we do visions we do it for four days and four nights with no food or water. And he walked and he walked and he walked and walked. And he came to this area that was almost uninhabited because there was no food or water anywhere ... so he started seeing visions because he was dying ... All of a sudden over the bluff there he seen these ears popping up, and it came over more and more. And there was this herd of *Ponokomitta*. And he was looking at them and they were looking at him. And this was the time when horses could talk to you, and I don’t mean how we talk with our mouth, but through [our minds]. They walked up to him and said, “We know you are dying. We are going to help you. We are going to help you and your people. The only thing we say is [that] you take care of us forever. And you love us, and you love us divinely. And we will take care of you forever... That’s how we got the horses, and we called them *Ponokomitta* ever since then, “Elk Dog” ... we’ve always, calmly known that we’ve always had the horses; way before the settlers came. The Spanish have never come through our area, so there’s no way they could have introduced that to us.⁴⁵⁰

The above is a portion of a horse acquisition story from the Blackfoot Peoples of the *Kainai* First Nation or the Blood First Nation. As this project participant explained in a previous chapter, this story was handed down to him by his great-grandmother who was born in 1880. Contrary to the claims of Western academia, this recounting of the Blackfoot acquisition of the horse does not mirror that which is put forth by the dominant Western culture in any way. Rather, it closely aligns with each of the horse acquisition stories and cosmologies provided by the other Indigenous participants in this project, as well as the Indigenous acquisition stories previously captured by Western academics and shared in this work.

As the *Lakota* Elder Basil Braveheart (*Traditional Knowledge Bearer, Ceremonial Leader/Medicine Person, and Teacher*) explained in concept, the English “translation” of Indigenous words and concepts, such as “Elk Dog” (for the Blackfoot) or “Sacred Dog” (a contemporary translation of the concept for the Lakota) are rarely exact translations. In fact, due to the extreme differences between the cosmology of Indigenous American cultures and the dominant Western cultures, there literally are not enough words or concepts to select from to allow for accurate translation. Indeed, as in the case of the *Lakota*, “*Sunka Wakan*” or “Sacred

⁴⁵⁰ Soop, personal communication, June 24, 2016.

Dog,” is a contemporary shift from the traditional “*Sun Wakan*,” which refers to this creature with deep, holy reverence. He explains as follows:

... the other way to describe a horse is “*Sun Wakan*” [the pre-contact way to refer to the “horse” with holy reverence]. It’s a different way of saying that then “*Sunka Wakan*” [a contemporary change made to reflect the influence of the dominant culture perspective]. So, “*Sun*.” Remember in the deepest linguistic understanding of *Lakota* language is based on sound. It connects to the wind. “Suuu,” [like: Shhhh] so it is a connection to sacred breath. “*Woniye Wakan*.” So, remember you are trying to describe something that is way out of the box. We’re trying to describe something linguistically that is the whole linguistic structure of the *Lakota* language is based on sound and vibration. So, they’re trying to define and categorize dates according to how we described two different four-leggeds. So, “*Sunka Wakan*” has a different utilitarian way the *Lakota* people evolved. They rode the horse, they didn’t ride the dog. And remember, the language also there’s sacred meaning and vibration implied in the language. That’s the only way that I can explain it.

As has been demonstrated by examples put forth in Chapter 5, Indigenous creation stories and oral history are not as dismissible or “fantastical” as Western academia overall has believed them to be. Rather than being “myths” without substance or the silly stories of “savage and heathen Peoples,”⁴⁵¹ some scientists have learned that with an open mind, a genuine willingness to learn, and some cross-cultural communication skills, the information in these historical accounts contain “an astonishing amount of descriptive data.”⁴⁵²

Many of the stories safeguarded and passed down from generation to generation within Indigenous cultures can be seen as literal retellings of what occurred. For example, Soop’s recounting of one of his People’s horse acquisition stories can be literally understood as one man’s personal experience with a “*Ponokomitte*.” In this case, a man who was on a spiritual quest was dying from dehydration and starvation. He was praying hard for help. During this time, and in this set of circumstances, a herd of horses came to him. After commitments were made between horse and man, the horse delivered him safely back to his People. The “agreement” that was made at that critical time set the tone for the remainder of the *Kainai* People’s relationship with that creature. From that day forward, the People understood they were to “love [them] divinely.”⁴⁵³

⁴⁵¹ Steven T. Newcomb, *Pagans in the Promised Land: Decoding the Doctrine of Christian Discovery* (Golden, CO: Fulcrum, 2008). xvi-xvii.

⁴⁵² Oregon Department of Geology, “Native American Oral Traditions,” <http://www.oregongeology.org/sub/earthquakes/oraltraditions.htm>.

⁴⁵³ Soop, personal communication, June 24, 2016.

Cajete explains creative techniques regarding the storage and dissemination of knowledge within Indigenous cultures. He provides an example of this and offers a deeper understanding of oral history and tradition. He states as follows:

Stories, particularly origin and culture hero stories, are mechanisms by which these understandings are conveyed to the next generation. This process can be compared to the process in which a book is written and then disseminated to the public in published form. Oral storytelling and the use of mythological symbols are used to communicate important information in the same way. Many Native stories relate how the world has changed. In a Piute myth, Coyote challenges shamans who have captured fire and are keeping it hostage for themselves atop an obsidian mountain. Coyote and his animal allies challenge the shamans to a dance contest. One by one, they dance the shamans into exhaustion. Everyone falls asleep, and the fire dies to a tiny ember. Coyote then steals the ember and flees with his animal allies. The animals toss the ember back and forth among themselves while running away from the obsidian mountain, and so fire is distributed throughout the land. The ice melts and darkness is dispelled. In some tales, particular attention is given to the ice melting. Those tales may have originated during an ice age, a time of (literal) darkness and the subsequent melting of glaciers and return of the sun ... One might say that these and other stories are folk tales, not scientific theory or method. In reality, the stories are alternative ways of understanding relationships, creation, and the creative process itself, as that process is involved in the underlying thought, as well as in how the tales are presented.⁴⁵⁴

Indeed, Deloria Jr. addresses Indigenous ways of learning and knowing through observation and inquiry. He explains the Indigenous “educational system” as follows:

By analogy, the preliminary efforts by Indians to gain knowledge of the physical world through observation and inquiry may be understood as the aboriginal equivalent of high school and college education. People come to know a great deal by observation. Add to that body of data the knowledge that was passed down in the stories told by the elders describing their experiences – the habits and practices of the other creatures or their knowledge of reading the clouds and winds. At least with respect to their own environment, these people had considerably more knowledge than we do today ... Rupert Sheldrake commented that “knowledge gained through experience or plants and animals is not an inferior substitute for proper scientific knowledge: it is the real thing. Direct experience is the only way to build up an understanding that is not only intellectual but intuitive and practical, involving the senses and the heart as well as the rational mind.”⁴⁵⁵

Due to this, the respectful collection of traditional knowledge (TK) is considered paramount in ensuring that accurate, descriptive data is gathered that has the power to correct and explain the inconsistencies that Western Academia has been unable to reconcile to date

⁴⁵⁴ Cajete, *Native Science*, 43.

⁴⁵⁵ Deloria, Jr., *The World We Used to Live In*, xxx-xxxi.

regarding this topic. This research project aims to compile (TK) and other evidence surrounding the history of the horse in the Americas from a number of Native Nations. These Native Nations cover the geographic range of the Americas. The physical distance between these Peoples in many cases was so significant that they had very little – if any – contact with one another. In addition, they did not share the same language, creation stories, or cultural traditions. After colonization, artificial barriers were put into place by the dominant culture in the form of laws forbidding the practice of their spirituality and religions,^{456 457 458} and severe penalties were imposed upon those caught speaking traditional languages and/or passing TK forward.^{459 460} In the 1800s and early 1900s, those who spoke about or practiced their traditional ways knew they could be sent away or threatened with relocation to insane asylums.^{461 462}

How, then, could it be possible that the story lines and cosmology regarding the Native Peoples and the horse in the Americas were largely consistent? Indeed, if the dominant Western cultural claim is correct, how is it that the “horse” was seen primarily as a spiritual companion rather than livestock, property, or “living tools” as the Spanish at the time believed them to be?⁴⁶³ How is it that Native Peoples had pre- and post- Spanish bridles,⁴⁶⁴ and completely different mounting, tacking, husbandry, and riding techniques? Would not the “teacher” pass forward his or her approach, techniques, tack, and perspectives to the “student”?

7.1 Effectiveness of Methodologies Selected

As the collection of TK was vital to this research project, the selection and application of an indigenous research paradigm that includes Critical Indigenous Research Methodologies (CIRM) was crucial to conducting this research in a culturally respectful manner. Indeed, as Schuessler admitted during his study on horse medicine, it is very difficult for Western academic

⁴⁵⁶ Zielske, “Tolerance and Subjection,” 1.

⁴⁵⁷ Palys, “Prospects for Aboriginal Justice,” <http://www.sfu.ca/~palys/prospect.htm>.

⁴⁵⁸ Native American Rights Fund, “We Also Have a Religion,” 5.

⁴⁵⁹ Hermes and Kawai‘ae‘a, “Revitalizing Indigenous Languages,” 303.

⁴⁶⁰ Warhol, “Creating Official Language Policy from Local Practice,” 235.

⁴⁶¹ Elizabeth Stawicki, “A Haunting Legacy: Canton Insane Asylum for American Indians,” last modified January 10, 2008, <http://www.rootsweb.ancestry.com/~sdlincol/hiawatha.htm>.

⁴⁶² Carla Joinson, *Vanished in Hiawatha: The Story of the Canton Asylum for Insane Indians* (Lincoln: University of Nebraska Press, 2016).

⁴⁶³ Elliot West, “The Impact of Horse Culture.” *The Gilder Lehrman Institute of American History*, 2017, <https://www.gilderlehrman.org/history-by-era/early-settlements/essays/impact-horse-culture>.

⁴⁶⁴ National Museum of the American Indian, *A Song for the Horse Nation*, 36.

researchers to do little more than “pry” information from “surviving Indians with whom they had become friends.” ⁴⁶⁵ Clearly with such an approach, combined with putting little to no effort into understanding protocols regarding the transmission of sacred knowledge, and the legislation and punishments inflicted by the dominant culture upon Native Peoples throughout the Americas for speaking their traditional languages, practicing their spiritual ways, or passing forward their culture and history, such traditional knowledge was destined to be forgotten or actively stamped out.

In this research, it is critical to gather both new and previously recorded data to try to present a more accurate picture of the history of the horse in the Americas. However, an important part of conducting an effective deconstruction involves also trying to understand how Western Academia and society arrived at the current place regarding its treatment of this topic. In an attempt to develop a solid theory as to how this occurred, Grounded Theory (GT) was applied in tandem with CIRM to “discover a theory from data” in a manner that is accurate, culturally appropriate, and respectful. ⁴⁶⁶

As has been explained in earlier chapters, qualitative research methods were utilized within Western academia by “early explorers who documented their experiences of encountering the tribes of foreign lands while collecting cultural artifacts, all in the name of colonization.” ⁴⁶⁷ However, these methods have also been utilized within Indigenous American cultures for thousands of years. Therefore, as these methods are considered culturally acceptable and comfortable to both Western and Indigenous “Academia,” the following were selected and utilized within this project: participant observation, interviews with Native Elders, medicine people, scientists, geneticists, reproductive biologists, archeologists, and horse experts, as well as analysis of written historical, academic, and scientific records.

Along with the use of such qualitative methods, the application of the GT methodology was critical in implementing a successful, accurate, and academically useful deconstructive process. As Western academia has not yet openly admitted to - or addressed - the flaws and inconsistencies within its predominant extinction theory surrounding the history of the horse in the Americas, there is much work to be done in trying to understand how we got to the place we are today and why it would have happened, as we are still not free of its confines. Methods such

⁴⁶⁵ Schuessler, “Indian Horse Healing,” 10.

⁴⁶⁶ Glaser and Strauss, *The Discovery of Grounded Theory*, 1.

⁴⁶⁷ Birks and Mills, *Grounded Theory*, 6.

as the “initial coding and categorization of data, concurrent data generation or collection and analysis, theoretical sensitivity, intermediate coding, identifying a core category, and advanced coding and theoretical integration”⁴⁶⁸ were incredibly valuable in helping to broaden the researcher’s perspective and understanding.

As has been demonstrated earlier in this thesis, many of the explorers and conquistadors who made the original voyages to the Americas in the late 1400’s and 1500’s were men who had experienced centuries of war, religious persecution, and great challenge^{469 470} Indeed, many “sea-going men” suffered trauma from the abuse and near-death experiences that were commonplace on these voyages. In his book *Spain’s Men of the Sea: Daily Life on the Indies Fleets in the Sixteenth Century*, Pablo E. Pérez-Mallaina explains the reality of life at sea at a time where ship wrecks, leaking ships, beatings, dehydration, malnutrition, and abysmal living conditions were considered normal. He states as follows:

The sixteenth-century writers who concerned themselves with life at sea generally agreed about one thing: sailing was a “desperate and fearsome business,” which is to say that going to sea can only be understood as the product of desperation. Life at sea was described by such unfavorable adjectives as “cruel,” “perverse,” “bad,” and “difficult,” leading to the conclusion that it was madness to put one’s life and fortune “three or four fingers away from death, which is the thickness of a ship’s planking.”^{471 472}

Although history books today often portray the conquistadors, explorers, and their crews who “discovered the Americas” in a flattering and adventurous light, many of them “went to sea” for less than romantic reasons. Pérez-Mallaina explains as follows:

A man might go to sea because he was driven out by the poverty of his home land. That is perhaps the most obvious reason and possibly the easiest to understand. But it is not the only reason: boredom, monotony, and isolation could also drive men from home ... we ought not forget that many people in the sixteenth century were pushed by family tradition to choose a particular occupation. Routine and inertia led many a man to take up his father’s occupation, without, in many cases, having a true vocation for it. Accident often plays a role in human lives as well, and in this light we should recognize that many men were obliged to go to sea not because of their economic circumstances but because they were literally forced to embark because of levies or because they were overpowered while in a drunken stupor. Without doubt,

⁴⁶⁸ Ibid., 10.

⁴⁶⁹ Berg, *Mysterious Horses*.

⁴⁷⁰ Walbert, “Spain and America,” <http://www.learnnc.org/lp/editions/nchist-twoworlds/1677>.

⁴⁷¹ Diego Garcia de Palacio, *Instrucción Náutica Para Navegar*. (Mexico: Pedro Ocharte, 1957), **quoted in** Pablo E. Pérez-Mallaina, *Spain’s Men of the Sea: Daily Life on the Indies Fleets in the Sixteenth Century*, translated by Carla Rahn Phillips (Baltimore: Johns Hopkins University Press, 2005), 132.

⁴⁷² Pérez-Mallaina, *Spain’s Men of the Sea*, 23.

the most sinister and lamentable cases were those that involved the kidnapping of minors or even the actual sale of boys by their desperately poor parents ... ⁴⁷³

If we are to accurately portray a picture of the mindset of the conquistadors and explorers, the social conditions in which they were forced to live are important to understand. In addition, and equally important to note, is the deep culture of “defrauding the local treasury” that was in place at the time. ⁴⁷⁴ As “constant economic difficulties” led the Spanish crown to rely heavily on “private patrimonies of its generals and admirals,” ⁴⁷⁵ eventual pardons for offenses such as smuggling contraband were “normal” for those generals or admirals willing to continue to colonize with enthusiasm on behalf of the Spanish crown. Indeed, filling ships with undeclared and, therefore, untaxed items, was considered a way to boost the incomes of all who came aboard. For the generals and admirals who often made loans to the consistently economically strained crown, it was easy to see how “many commanders of the fleets thought that their business dealings were no more than the collection of old debts that the crown had contracted with them.” ⁴⁷⁶ Pérez-Mallaína describes one such event in 1579 where General Don Cristóbal de Eraso, and all of those aboard his ship were caught “red handed” with contraband and later pardoned:

The inspectors of the House of Trade made the crewman and passengers declare all the objects they had brought without registration, and many of them, frightened by the deployment of the police, were taking out jewels, strips of gold, silver ingots, and purses filled with coins. The defrauders represented all sorts and conditions of humanity, from simple trumpeters in the armada to ensigns, pilots, and masters. Even various of the beatific religious on board, who traveled as passengers, did not deprive themselves of bringing their little sack of coins or their strips of gold sewn to their clothing ... When the voluntary declarations ended, the inspectors went straight to the personal sea chests of the crewmen and looked into the storerooms and holds of the ships. Then it was as if the depths of each ship spewed forth fantastic fountains of silver. Under the sacks of biscuit, scrambled with the black powder, placed inside the ballast, or hidden in the interior of water and wine barrels, they discovered and began to take out ingots and round plates of silver, coins and jewels ... ⁴⁷⁷

⁴⁷³ Ibid., 24-25.

⁴⁷⁴ Ibid., 113

⁴⁷⁵ Ibid.

⁴⁷⁶ Ibid.

⁴⁷⁷ Ibid., 111-112.

7.2 Theories Developed Based Upon Deconstruction

As was demonstrated in Chapter 6, Sebastian Cabot, *Piloto Mayor* of Charles the Fifth, King of Spain, reported the presence of horses in South America as early as 1527 and depicted them on his map. As the TK collected in this research project from a number of different Native Nations supported the pre-Columbian presence of horses and there is substantial scientific and archeological evidence to prove their presence pre-contact, it would be reasonable to accept the following determination of Berthoud:

... it is a fair presumption, for neither Spaniards in Peru or other parts of America, nor even Portuguese, had been long enough in South America for the few Spanish horses introduced to have roamed wild from Peru to the head of Paraguay and Parana rivers, and increased in numbers sufficiently to have attracted the attention of Spanish explorers. The period was too short and the distance too great from the Spanish possessions in Peru across the vast forests of the Andes, for such a rapid increase. We can reconcile this discrepancy only by believing that the paternity of the vast herds of the Argentine Republic and of Paraguay was a native breed of American horses; mixing afterward with the Spanish breed introduced by the conquerors.⁴⁷⁸

Therefore, the next step is to attempt to determine why others did not report this to the Spanish crown as openly and consistently. This application of CIRM in tandem with GT has brought forward a vast amount of information and a number of theories as to why more Spanish conquistadors may not have initially reported the presence of horses in the Americas. As is suggested by Oviedo on page 143, it is possible that many of the early Spanish conquistadors simply could not get close enough to the smaller, more wild Native horses to know that they were anything more than “quadrupeds.” As the metal armor, stirrups, and helmets made the conquistadors very noisy when they traveled, the wild horses and other animals were scared away long before the teams of explorers could get close enough to positively identify them.⁴⁷⁹

In addition, since it has been shown that the practice of defrauding the Spanish Crown was part of the conquistadors’ internal culture at the time,⁴⁸⁰ it is also probable that the conquistadors intentionally misled the Spanish Crown in order “to avoid paying taxes to the Spanish King.”⁴⁸¹ Had they admitted the presence of horses in the Americas, by Spanish law

⁴⁷⁸ Berthoud, “The American Horse,” 4963.

⁴⁷⁹ Oviedo, personal communication, August 20, 2016.

⁴⁸⁰ Pérez-Mallaina, *Spain’s Men of the Sea*, 113.

⁴⁸¹ Whittall, “Extant Native American Horses, Part II,” 13.

those horses would have been deemed to be property of the Crown and they would have been forced to pay taxes. Indeed, as Whittall's research shows, those caught by the Royal Tax Collectors with undeclared horses came up with a successful legal defense strategy whose remnants can be seen as the basis of the United States Federal Government's wild horse "management" policy that is in place today.

The article entitled *Antigüedad del Caballo En El Plata* (The Antiquity of the Horse in the River Plate) by Anibal Cardoso as cited by Austin Whittall in his blog titled *Extant Native American Horses Part II*, describes the explorer Cabeza de Vaca's experience in Argentina after having been "caught" by the Royal Tax Collector with 100 more horses than he had reported bringing with him on his expedition. This is particularly interesting since it was reported that when the Spaniards returned to the area to battle the locals in 1580 they "came across the horses, vast quantities of them. Native American horses."⁴⁸² He states as follows:

Cabeza de Vaca brought 27 horses with him. And they were an expensive item, worth 4,000 gold Reales. A fortune. In 1547 only 26 were still alive. But in 1553 Asunción had 130 horses ... The Spaniards however, said that these horses were the offspring of the ones left behind by [Pedro de Mendoza, a Spanish explorer who founded a town in Argentina in 1536]. Why? To avoid paying taxes to the Spanish King. The Royal Tax Collectors said that the horses belonged to the King as they were part of his domains. But, after going to court, the judge found in 1596 that since they were descendants of the horses brought by Mendoza in 1536, they were not "of the land," but feral horses [here the term "feral" refers to animals that were domesticated by the Spanish and subsequently became wild] and therefore exempt of taxation.⁴⁸³

Finally, it is also probable that the open bias and prejudice at the time against Indigenous Peoples prevented the colonizing cultures from accurately reporting what they witnessed, or accepting any testimony that would have identified the Native Peoples as "civilized" human beings with sophisticated, sustainable, and well-established cultures. As the horse was a mark of nobility and power for the Spanish crown and society at the time,⁴⁸⁴ reporting that the Native Peoples had horses in the Americas would have argued for the fact that the Native Peoples were, indeed, already civilized.⁴⁸⁵ Such an admission would have likely countered Columbus' determination that the Native Peoples "ought to make good slaves" for the Spanish crown as they

⁴⁸² Ibid.

⁴⁸³ Ibid.

⁴⁸⁴ Berg, *Mysterious Horses of Western North America*, 57.

⁴⁸⁵ Breen, "The Elks Are Our Horses," 202.

“could very easily become Christians” as they “had no religion of their own.”⁴⁸⁶ As Walbert explains:

To a European, a “civilized” person was someone who lived in a house, ate his meals at a table – and certainly, wore full clothes! These nearly naked people with no understanding of metal weapons must have seemed incredibly primitive to Columbus and his men – like something, perhaps, out of the Garden of Eden. If the people of the “Indies” were so poor and uncivilized, Columbus believed he had every right to take their land and make them into “servants.”⁴⁸⁷

Indeed, the Papal Bull “*Inter Caetera*,” issued by Pope Alexander VI on May 4, 1493, “played a central role in the Spanish conquest of the New World” and still influences United States policy today.^{488 489} The article titled “The Doctrine of Discovery, 1493” shows the level to which the Vatican’s active political participation in the 1400s determined the course of history throughout the Americas, as well as how – amazingly - it is still forms the basis of certain United States policies today:

The document supported Spain’s strategy to ensure its exclusive right to the lands discovered by Columbus the previous year. It established a demarcation line one hundred leagues west of the Azores and Cape Verde Islands and assigned Spain the exclusive right to acquire territorial possessions and to trade in all lands west of that line. All others were forbidden to approach the lands west of the line without special license from the rulers of Spain ... The Bull states that any land not inhabited by Christians was available to be “discovered,” claimed, and exploited by Christian rulers and declared that “the Catholic faith and the Christian religion be exalted and be everywhere increased and spread, that the health of souls be cared for and that barbarous nations be overthrown and brought to the faith itself.” This Doctrine of Discovery” became the basis of all European claims in the Americas as well as the foundation for the United States’ western expansion. In the U.S. Supreme Court in the 1823 case *Johnson v. McIntosh*, Chief Justice John Marshall’s opinion in the unanimous decision held “that the principle of discovery gave European nations an absolute right to New World lands.”⁴⁹⁰

An example of such denial and factual restructuring based upon cultural bias with regard to the pre-Columbian presence of horses in the Americas can be seen in the reports made by the royal chronicler Peter Martyr d’Anghiera regarding the testimony given by a Spanish captain and

⁴⁸⁶ Walbert, “Spain and America,” <http://www.learnnc.org/lp/editions/nchist-twoworlds/1677>.

⁴⁸⁷ Ibid.

⁴⁸⁸ The Gilder Lehrman Institute of American History. “The Doctrine of Discovery, 1493.” *The Gilder Lehrman Institute of American History*. 2017. <https://www.gilderlehrman.org/history-by-era/imperial-rivalries/resources/doctrine-of-discovery-1493>.

⁴⁸⁹ Newcomb, *Pagans in the Promised Land*.

⁴⁹⁰ The Gilder Lehrman Institute of American History, “The Doctrine of Discovery,” <https://www.gilderlehrman.org/history-by-era/imperial-rivalries/resources/doctrine-of-discovery-1493>.

slave trader in 1522. These Spaniards reported witnessing horses with Native Peoples off the coast of what we now know of today as Georgia and the Carolinas. Although this chronicler had not been to the area to view for himself, after he interrogated these men for weeks he concluded the following: “Could I act as arbitrator, I would say that according to the investigations I have made, these people were too barbarous and uncivilized to have horses.”⁴⁹¹

With the analysis of this information, it is easy to see how the predominant bias of the time - as demonstrated by Martyr d’Anghiera and outlined in each of these above examples - combined with a societal and cultural acceptance of defrauding the crown for personal gain, could easily have led to the following theory put forth in the interview by Dr. Michael Koskey, after he spent decades analyzing the theories he had been taught regarding the history of the horse in the Americas in his Western scientific courses: “And so, I came to the conclusion that Europeans landed in the Americas knowing that horses were power. And so immediately began to take control of horse herds, and/or the people who controlled those herds.”⁴⁹²

As the North, Central, and South American landmasses are incredibly vast, and there were a number of exploratory entry points, it is highly likely that all three of these theories are valid in combination or individually. In addition, the following factors also contributed to what actually occurred: the Spanish crown was newly formed at the time, therefore, the alliances between the King, Queen, and “their” explorers were not strong enough to overcome a deep culture of defrauding. In addition, communication between the European Nations was slow, incomplete, and inconsistent. How else would it be possible to explain the fact that the observations of notable explorers such as Sir Francis Drake did not shift the tide? When the Queen of England sent him to the areas now known as Northern California and Oregon in 1579 he “related his wonder at seeing so many wild horses, because he had heard that the Spaniards had found no native horses in America; save those of the Arab breed which they had introduced.”⁴⁹³ Drake’s observation is powerful not only because it refers to the large number of horses, but also their state (wild versus domestic) and their “type” or “breed” (not of the Arab breed brought over by the Spanish.)

Indeed, how else would it be possible that much of the “first contact” between Native Nations and European explorers and settlers recorded that the Native Peoples “already had

⁴⁹¹ MacNutt, *De Orbe Novo*, 259.

⁴⁹² Koskey, personal communication, October 18, 2016.

⁴⁹³ Burrage, *Original Narratives of Early American History*, 23.

horses,”⁴⁹⁴ and exhibited expert horsemanship skills,⁴⁹⁵ yet the conclusion that Natives had a pre-existing horse culture was not seriously considered? Even when Joseph Leidy discovered pre-Columbian horse skeletons in North America and published his findings in 1847,⁴⁹⁶ the Western Academic establishment only accepted his findings after they reconfigured the facts to state that the horses must have died out during the last Ice Age. This conclusion, which was reached without any scientific backing, still managed to credit Europeans for reintroducing the horse to the Americas and to its Native Peoples with the arrival of the Spanish.⁴⁹⁷

How would it be possible that the presence of ancient petroglyphs, pictographs, geoglyphs, effigies, and figurines of horses would not compel archeologists to begin a serious movement to scientifically test for dates in order to reevaluate the dominant Western cultural claim? How is it that consistent evidence of the genetic presence of *Equus* remains outside of the purported extinction time period accepted by the Western Academic establishment has not stimulated a flurry of new research in the area? Are each of these factors not considered substantial enough to debunk the current – and very unscientific - dating methodology utilized, which automatically categorizes petroglyphs, pictographs, geoglyphs, effigies, and figurines into the “post-Columbian” timeframe if it contains a depiction of a horse?

Indeed, perhaps the following explanation best summarizes what occurred in this instance, and what continues to permeate Western academia with regard to the history of the horse in the Americas. In his book titled *Soil and Soul: People Versus Corporate Power*, Alastair McIntosh utilizes Paulo Freire’s description of “cultural invasion” to explain the above phenomenon. He quotes as follows:

... the invaders penetrate the cultural context of another group, and ignoring the potential of the latter, they impose their own view of the world upon those they invade and inhibit the creativity of the invaded by curbing their expression ... Cultural invasion is thus always an act of violence against the persons of the invaded culture who lose their originality ... [It] leads to the cultural inauthenticity of those who are invaded; they begin to respond to the values, the standards, and the goals of the invaders ... It is essential that those who are invaded come to see their reality with the outlook of the invaders, the more

⁴⁹⁴ Ewers, *The Horse in Blackfoot Indian Culture*.

⁴⁹⁵ Haines, “Horses for Western Indians,” 6.

⁴⁹⁶ “Joseph Leidy.” *Encyclopædia Britannica*. Last updated on July 20, 1998. <http://www.britannica.com/EBchecked/topic/335394/Joseph-Leidy>.

⁴⁹⁷ Leidy and Gibbs, “Meeting for Business, September 28, 1847,” <http://www.jstor.org/stable/4058414>.

stable the position of the latter becomes ... It is essential that those invaded become convinced of their intrinsic inferiority.^{498 499}

McIntosh continues by adding his analysis and conclusion regarding the phenomenon of “cultural invasion”:

So, there we have it. History gets pushed aside as “just something from the old days.” A culture of silence takes hold, and that silence is, of course, the voice of complicity; the voice of all of us who are afraid to stir from the spell of what Professor Donald Meek calls “heavy doses of cultural anesthesia ... to blot out the hardships of the past.”^{500 501}

⁴⁹⁸ Paulo Freire, *Pedagogy of the Oppressed* (London, UK: Penguin Books, 1972), 121-122., **quoted in** Alastair McIntosh, *Soil and Soul: People versus Corporate Power* (London: Aurum Press, 2004), 95.

⁴⁹⁹ McIntosh, Alastair, *Soil and Soul: People versus Corporate Power* (London: Aurum Press, 2004), 95.

⁵⁰⁰ Donald E. Meek, “The Land Question Answered from the Bible: The Land Issue and the Development of a Highland Theology of Liberation,” *Scottish Geographic Magazine*, 103:2, 1987., 84-89., **quoted in** Alastair McIntosh, *Soil and Soul: People versus Corporate Power* (London: Aurum Press, 2004), 95.

⁵⁰¹ Ibid.

Chapter 8

Conclusion and Future Research Steps

Out of the Earth
I sing for them
A Horse Nation
I sing for them
Out of the Earth
I sing for them,
The animals
I sing for them.

English translation of a song sung by Lone Man (Teton Sioux) ⁵⁰²

8.1 Conclusion

Yes, it has been said that the “conquerors write the history.” ⁵⁰³ However, in order for a “conqueror” to exist and “history” to be finalized, the battle must be over. Indigenous Peoples across the Americas – and indeed, throughout the world – are rising to support the validity of the cosmology, axiology, ontology, and epistemology of their Ancestors, as well as to advocate for the capacity of traditional knowledge systems to create sustainable cultures for the next seven generations. This movement is proof that the outcome of the battle has yet to be decided. As has been shown in this research project, the latest technologies being utilized by Western science may hold the key to unlocking the truth about the history of the horse in the Americas in a way that the dominant Western culture can understand.

The original teachings of many of the Indigenous Peoples of the Americas do not show that the horse was introduced to the Native Peoples by the Spanish or by other European explorers. In fact, the TK collected in this investigation describes the horse not as a “beast of burden” or a “living tool” introduced to the Indigenous Peoples by foreigners, but as a holy relative gifted to them for caretaking by the Creator long ago. ^{504 505 506 507} In such a way of

⁵⁰² National Museum of the American Indian, *A Song for the Horse Nation*, back cover.

⁵⁰³ Fixico, “Ethics in Writing American Indian History,” 86.

⁵⁰⁴ Afraid of Bear Cook, personal communication, September 9, 2016.

⁵⁰⁵ Werito, personal communication, August 19, 2016.

being, “horse,” “man,” “woman,” and “child” stood by one another in times of celebration and in times of great need. Indeed, they were truly relatives.

Although the genocide of the Native People and their ponies was a standing policy of the United States government until the mid-1800s,^{508 509} public outcry eventually caused a shift.⁵¹⁰ ⁵¹¹ As a result, policies of genocide would give way to assimilation. While the remaining Indigenous Peoples of the Americas were systematically stripped of their languages, societal structures, sacred places, and ceremonies, and torn apart from their own Peoples and families, the dominant Western culture also simultaneously tore the Native ponies away from everything that helped to make them who and what they were. These four legged relatives were turned into “beasts of burden,” purposefully “mixed” with other types of horses to “be improved,”⁵¹² shipped by the hundreds of thousands to fight wars and lose their lives in faraway countries,⁵¹³ ⁵¹⁴ and doomed to be labeled as something other than what they are. Yet, despite all of this, both the Native Peoples of the Americas and their Indigenous ponies still stand. And if brought together once again as who and what they truly are, this sacred hoop can be mended.

With regard to this topic, the foundation upon which Western Academia currently lies was created out of fear, prejudice, greed, desperation, and misunderstanding. Naturally, this cannot stand as long as people are sincerely seeking knowledge and understanding. If Western Academia and the TK of Indigenous Peoples can be utilized on an equal academic footing to offer a more complete and accurate history of “what was” for the Native Peoples, flora, and fauna of the Americas at the time of first contact, then the end of the battle in this portion of the world can be glorious for “both sides.” Indeed, had more of the initial and early conquistadors admitted to the Spanish crown and other authorities that the Native Peoples of the Americas

⁵⁰⁶ Soop, personal communication, June 24, 2016.

⁵⁰⁷ Braveheart, personal communication, September 10, 2016.

⁵⁰⁸ Don Cutler “Your Nations Shall Be Exterminated.” *HistoryNet*. March 29, 2011. <http://www.historyn.com/nations-exterminated.htm>.

⁵⁰⁹ Pettit, “Slaughter of Horses Leaves Lasting Mark,” *The Spokesman-Review*, October 1, 2009. <http://www.spokesman.com/stories/2009/oct/01/slaughter-of-horses-leaves-lasting-mark/>.

⁵¹⁰ Greene and Scott, *Finding Sand Creek*, 4.

⁵¹¹ National Park Service, U.S. Department of the Interior, “Sand Creek Massacre National Historic Site, Eads, Colorado,” accessed February 23, 2017, https://www.nps.gov/nr/travel/cultural_diversity/Sand_Creek_Massacre_National_Historic_Site.html.

⁵¹² Rickman, B., personal communication, May 29, 2016.

⁵¹³ Emily Upton, “The Horses of World War I,” *Today I Found Out: Feed Your Brain*, March 7, 2014, <http://www.todayifoundout.com/index.php/2014/03/horses-world-war/>.

⁵¹⁴ Mark St. John Erickson, “During World War I, Newport News Port Was Biggest Supplier of War Horses for British Army,” *Daily Press*, November 30, 2016, <http://www.dailypress.com/features/history/dp-nws-world-war-i-war-horses-1-20141129-story.html>.

already had highly developed horse cultures at the time of “First Contact,” it is likely that the legal “criteria for colonization” that the Spanish had could not have been met. As the horse was so closely entwined with the concept of civilization for the Spanish peoples,^{515 516} the sophistication and advanced nature of the Indigenous cultures throughout the Americas would not have been as easy to overlook. We have arrived at an era in which the latest technology, combined with guidance from the TK of our Indigenous Peoples, has the power to open new avenues of possibility for our collective communities. It is time that Western academia allow the evidence to guide its scholars, and not continue to expect them to defer to authority regarding “history’s” preconceived notions of what is acceptable, possible, or comfortable. The time has come for a paradigm shift.

In his book titled *The Structure of Scientific Revolutions*, Thomas Kuhn explains the process and structure of something he calls “scientific revolution” – when an old paradigm is finally, and often quite painfully, replaced with a new one. He includes quotes from renowned scientists such as Einstein who described their feelings regarding the paradigm shifts of their time as follows: “It was as if the ground had been pulled out from under one, with no firm foundation to be seen anywhere upon which one could have built.”⁵¹⁷

This book “ends with the disconcerting thought that progress in science is not a simple line leading to *the* truth. It is more progress *away from* less adequate conceptions of, and interactions with, the world.”⁵¹⁸ However, perhaps comfortingly, Kuhn describes the very common process of internal resistance to paradigm shifts within Western science in his book as follows:

Still, to say that resistance is inevitable and legitimate, that paradigm change cannot be justified by proof, is not to say that no arguments are relevant or that scientists cannot be persuaded to change their minds. Though a generation is sometimes required to effect the change, scientific communities have again and again been converted to new paradigms. Furthermore, these conversions occur not despite the fact that scientists are human but because they are. Though some scientists, particularly the older and more experienced ones, may resist indefinitely, most of them can be reached in one way or another.

⁵¹⁵ Breen, “The Elks Are Our Horses,” 202.

⁵¹⁶ Collin, “The Relationship Between the Indigenous Peoples of the Americas and the Horse: How the Dominant Culture’s View of Oral History Denied Truth,” 2.

⁵¹⁷ Thomas Kuhn, *The Structure of Scientific Revolutions*, 50th anniversary ed., (Chicago: University of Chicago Press, 2012), 83-84.

⁵¹⁸ Ibid., xi.

Conversions will occur a few at a time until, after the last holdouts have died, the whole profession will again be practicing under a single, but now a different, paradigm.⁵¹⁹

8.2 Future Steps

Clearly, there is much work remaining to be done to fully reconstruct the history of the horse in the Americas and its original relationship with many of the Native Peoples. This section will outline potential “next steps” for future research. Such steps include a thorough examination of Spanish records detailing the number, gender, and physical characteristics of the horses that were brought aboard ships to the Americas and a charting of where they went upon their arrival to the Americas; further genome sequencing for the Ancient North and South American horses; genetic testing to identify specific markers to help locate any remaining survivors of the Indigenous horse of the Americas; creation of a database preserving this genetic information and identifying remaining herds for preservation; a careful cataloguing and scientific dating of any horse petroglyphs, pictographs, geoglyphs, effigies, and figurines of horses that are located in and amongst pre-Columbian sites or pre-Columbian artifacts; scientific dating of horse fossils and/or remains found in pre-Columbian sites or in levels of earth that are noted as being “pre-Columbian”; further interviewing of Indigenous knowledge keepers who wish to contribute TK regarding the horse including physical description of “their horses” versus the “European horses”; a revision of the current elementary and high school curriculum across the country to reflect this corrected version of history; inclusion of this research in Tribal College curriculums and libraries; begin a campaign to protect any remaining Indigenous horses utilizing the Wildlife Protection Act and/or the Endangered Species Act; create relationships with research institutions within Central and South America who would collaborate with this project by helping to collect genetic samples of “*Ganado Caballar*” and other Native horses; conduct a broader survey of other Indigenous cultures outside of the Americas to ascertain if such colonizing tactics were also used against them; and finally, a focus on the development of a solid theory regarding the migratory pattern of these horses during and after the Ice Age period, which will be determined utilizing a methodology that respects Indigenous protocols regarding the exchange and passing forward of TK, as well as findings from the latest technology.

⁵¹⁹ Ibid., 151.

1.) *Examination of Spanish Records Regarding Equine Shipments:*

Many early explorers reported sighting “vast herd of horses” upon their first journeys into the mainland of North and South America ⁵²⁰ or horses already with Native Peoples upon first contact. ⁵²¹ Indeed, by 1598, Oñate reported losing 300 horses during his exploratory journey up into the current New Mexico territory due to his “inability to contain animals while wild horses were roaming nearby.” ⁵²² In addition to this, many reported that early on, the “entire [Native] culture[s] seemed to depend upon the horse, and the horse-culture complex” was at such a high “stage of development” that it rivaled thousands’ year-old horse cultures. ⁵²³ Such observations of “vast herds of horses” in a “country so immense and full of wild mares” whose original inhabitants had established horse cultures, ^{524 525} would not be possible with the number of horses reported having been brought by the Spanish, the dates they were brought over, the very low number having been reported lost, and the genders of those reported lost (as it takes a stallion and a mare to make a baby.)

As so many researchers throughout the history of this subject have been confused by this, a project that focuses on the formal establishment of the following is in order: the number, genders, and dates of horses loaded onto Spanish ships heading for the Americas; the number and gender of horses that passed away during the journey; the areas of the Americas or Caribbean that the horses landed; the exploratory journeys upon which these horses were taken, tracking these horses as much as possible; an inventory of numbers of horses and size of Spanish herds where possible; and the recording of any laws that forbade Native Peoples from having or riding horses. Once such a study has been completed, it can be used as a reference work upon which the accuracy and conclusions of previous scholarly works can be measured.

⁵²⁰ Burrage, *Original Narratives of Early American History*.

⁵²¹ Thornton, “490-Year-Old Spanish Documents,” <http://frontiers-of-anthropology.blogspot.com/2014/03/490-year-old-spanish-documents-describe.html>.

⁵²² Hockensmith, *Spanish Mustangs*, 38.

⁵²³ Haines, “Horses for Western Indians,” 6.

⁵²⁴ Burrage, *Original Narratives of Early American History*.

⁵²⁵ Hockensmith, *Spanish Mustangs*, 38.

- 2.) *Genome Sequencing for Ancient North and South American horses*: The genome sequencing has been completed for many domesticated horse breeds, as well as the Prezwalski horse.^{526 527} Recently, the genome sequencing was completed for an early Middle Pleistocene horse that lived in the Yukon area between 560,000 – 780,000 years ago^{528 529} Future archeological and genetic research needs to focus on collecting fossilized fragments of Equine remains in North and South America that have been dated as pre-Columbian, and then working to extract DNA so that further genome sequencing can be performed. As traditional knowledge bearers within North America have explained there were a number of types of Indigenous horse in the Americas. Therefore, securing and sequencing multiple samples, and carefully cataloguing where they were found, is paramount.
- 3.) *Genetic Testing to Identify Remaining Survivors*: For centuries, the wild horse herds in North America and the specific herds of horses that were caretaken by Native Peoples have been targeted and treated by the dominant Western culture as if they were “feral,” and therefore somehow “disposable.” This treatment continues today. During the “Indian Wars” of the 1800s, the U.S government ordered the native ponies to be “rounded up and destroyed to prevent Indians from leaving the newly-created reservations.”⁵³⁰ During World War I, it is estimated that nearly 8 million horses were killed in the European war efforts.⁵³¹ As there were “not a million horses to spare in Great Britain at the time ... a lot of the horses were taken from the North American plains ... and shipped off to be trained for modern war.”⁵³² Other sources claim the number of American “wild horses” to have been shipped to be closer to 500,000.⁵³³

⁵²⁶ Bailey and Brooks, *Horse Genetics*.

⁵²⁷ Cossins, “Horse Genome.”

⁵²⁸ Ibid.

⁵²⁹ Orlando, et al., “Recalibrating Equus Evolution.” <http://www.nature.com/nature/journal/v499/n7456/full/nature12323.html>.

⁵³⁰ Henderson, *The Aboriginal North American Horse*.

⁵³¹ Taylor, “World War I in Photos,” <https://www.theatlantic.com/photo/2014/04/world-war-I-in-photos-animals-at-war/507320/>.

⁵³² Upton, “The Horses of World War I.”

⁵³³ Erickson, “During World War I, Newport News Port Was Biggest Supplier of War Horses for British Army.”

Before the Wild Free-Roaming Horse and Burros Act of 1971 was passed, the mass slaughter of America's wild horse population caused the numbers to dwindle so low that even the government agreed that protection of the horses was in order. However, the responsibility to "manage" these herds was given to the Bureau of Land Management (BLM), whose mentality and perspective is aligned with a colonizing approach. As recently as September 2016, the BLM's Wild Horse and Burro Advisory Board voted to "sell or euthanize the unadoptable animals among the 45,000 wild horses in government holding corrals."⁵³⁴ As to date the desires of cattle farmers and special interest groups have taken precedence, the U.S government is likely systematically exterminating much of what may be left of the Indigenous Horse of the Americas with their current "wild horse management policies." The genetic testing that has been done to date on these herds simply tries to match for Spanish markers. Such testing does not qualify these horses for protection under the Endangered Species Act of 1973. Although it had been "convenient" not to look and conduct proper genetic testing to date, it is no longer acceptable to press forward with the "status quo," as such surviving animals and their natural habitats should be being actively protected by the Endangered Species Act.

4.) *Cataloguing and Scientific Dating of Equine "Rock Art," Geoglyphs, Effigies and Figurines:* As has been demonstrated, ancient petroglyphs, pictographs, geoglyphs, effigies and figurines of horses are often automatically put into the "post-Columbian" category by Western scientists.^{535 536 537 538 539} Indeed, this categorization without scientifically dating is part of the methodology handed down from teacher to student. In order to reconstruct an accurate picture of the history of the horse in the Americas, the horse petroglyphs, pictographs, geoglyphs, effigies, and figurines need to be

⁵³⁴ Karin Brulliard, "U.S Government: No Plans to Kill 45,000 Wild Horses," *The Denver Post*, September 16, 2016, <http://www.denverpost.com/2016/09/16/government-no-plans-kill-wild-horses/>.

⁵³⁵ Farley, *In Plain Sight*.

⁵³⁶ Eddins, "Southwest Rock Art Pictures," <http://thefurtrapper.com/home/southwest-rock-art>.

⁵³⁷ van Hoeck, "The Horseman of Alto de Pitis, Peru," https://www.academia.edu/22684628/VAN_HOEK_M._2013._The_Horseman_of_Alto_de_Pitis_Peru_A_Post-Columbian_Outsider_in_a_Pre-Columbian_Landscape_.Andean_Rock_Art_Papers_-_Part_1_-_Paper_1.

⁵³⁸ Downer, "The Horse and Burro," doi: 10.11648/j.ajls.20140201.12.

⁵³⁹ Martin, *Twilight of the Mammoths*.

cataloged and the latest scientific dating technologies applied. A database should be compiled and made available to be utilized by scholars across academic disciplines.

5.) *Scientific Dating of Horse Fossils and/or Remains found in Pre-Columbian Sites:* The majority of the horse fossils and/or remains that have been scientifically dated and found to have been post “Ice Age” and pre-Columbian were done so as part of larger and more broad studies.^{540 541} Research that focuses primarily on locating and scientifically dating fossils and remains that fall within the proposed extinction period are necessary in order to reconstruct a more accurate history of the horse in the Americas. As the interior of caves are cool and dark, it is likely that remains that have been preserved inside of caves will have enough DNA to allow for further genetic study. Indeed, the horse remains and skeletons that are buried within the deep layers of the creeks and rivers in the Southeast will also likely lead to the location of adequately preserved samples. Permission needs to be granted by the Federal Government to allow people to come forward with such “finds,” as it is paramount to the advancement of science in this area.

6.) *Further Interviewing of Traditional Knowledge Bearers and Cataloguing of the TK They Deem Appropriate for Dissemination:*

The TK that was collected as part of this research project simply touches the “tip of the iceberg” regarding the full history of the horse in the Americas. As there were thousands upon thousands of Native Nations prior to “first contact” with the European cultures who came to colonize, it may not be possible – or desirable to certain Native Nations - to recover and record all of the knowledge surrounding this topic. However, knowledge bearers from each surviving Native Nation should be approached to see if they are interested in contributing to further research. As TK surrounding the horse is in the realm of “sacred knowledge,” cultural protocols regarding the collection and protection of this data will need to be respected. As has

⁵⁴⁰ Graham and Lundelius, Jr., *FAUNMAP*.

⁵⁴¹ American Museum of Natural History, “Mammoths Hung on Longer?” <http://www.sciencedaily.com/releases/2009/12/091214151946.htm>.

been recorded, many Nations have claimed that they had the horse prior to the arrival of the Spanish.^{542 543 544} Yet to date, this has not been categorized as “proof” of their pre-Columbian presence as the Western academic establishment has exhibited a bias against oral history and tradition.^{545 546 547} Projects such as these will help to eradicate such bias, as it will be shown that TK and the latest technology can be utilized quite harmoniously in tandem to create balanced and complete research results.

7.) *Revision of Elementary and Secondary School Curriculum*: The current grade school and secondary school curriculum within the United States is outdated, and, therefore, incorrect regarding this topic. As textbooks and history standards can be revised as deemed necessary,⁵⁴⁸ adequate pressure needs to be applied to textbook companies so the importance of such revisions is noted. Indeed, revisions to reflect a more truthful and accurate portrayal of the history of the horse in the Americas will serve to lift the self-esteem of Native Peoples, as well as help to correct harmful bias that still permeates American educational institutions.

8.) *Inclusion of Research in Tribal College Curriculum and Libraries*: The present research project, as well as other future research in this area should be announced and presented to Tribal Colleges and their libraries. When possible, those conducting the research should make presentations to their faculty and students. If Native students and faculty understand that there is a “safe place” for their culture and ideas within Western academia, such introductions and presentations may stimulate a surge in Native participation within academia. This has the potential to enhance many

⁵⁴² Tadlock, “America’s Native Horses,” <http://www.ultimatehorsesite.com/info/wildhorseessay2.html>.

⁵⁴³ Henderson, *The Aboriginal North American Horse*.

⁵⁴⁴ Hockensmith, *Spanish Mustangs*.

⁵⁴⁵ Cruikshank, *Reading Voices*.

⁵⁴⁶ Palys, “Prospects for Aboriginal Justice,” <http://www.sfu.ca/~palys/prospect.htm>.

⁵⁴⁷ Wolf, Eric R. *Europe and the People Without History*. Berkeley: University of California Press, 1982.

⁵⁴⁸ Zoe Schlanger, “Revised AP U.S. History Standards Will Emphasize American Exceptionalism,” *Newsweek*, July 29, 2015, <http://www.newsweek.com/revised-ap-history-standards-will-emphasize-american-exceptionalism-358210>.

scholarly fields, as Indigenous TK holds the key to help solve many of Western Academia's greatest "mysteries."

9.) *Campaign to Protect any Remaining Indigenous American Horses:* Until the genome sequencing has been done on the Ancient North and South American horses and the wild horses within all government holding pens have been tested, all plans to euthanize "unadoptable" horses and cull "excess" wild horses should be halted. Any of the horses that contain Indigenous American genetic markers should no longer be "protected" by the Wild Horse and Burro Act, but instead fall under the protection of the Endangered Species Act of 1973. This Act protects not just their physical bodies, but their habitats. As soon as such herds are identified, automatic protection should be provided for them and for their natural environment. At this juncture, the United States must make a choice to protect special interests or abide by its own laws.

10.) *Collaborate with Central and South American Research Institutions:* As Dr. Marco Oviedo indicated in his August 20, 2016 interview, his experience has shown him that Indigenous American horses currently survive in the Copper Canyon region, located in Northern Mexico. Collaborative relationships should be cultivated with research institutions throughout the Americas to collect genetic samples of both living horses and ancient remains. If Western science truly strives to be based upon an earnest quest for truth and knowledge, such a collaboration should not frighten them. Rather it should prove exciting and potentially liberating.

11.) *Conduct Global Survey of Other Indigenous Peoples:*

In May 2014 at the World Indigenous Peoples Conference on Education (WIPCE) in Honolulu, Hawaii, a Maori woman from New Zealand expressed that she could relate to this research. She explained that after viewing a presentation about this project, she came to realize that the "same thing" had been done to her people regarding the pig. She explained that in her experience, the pig is considered sacred to the Maori and it is an integral part of their ceremonial life. However, the dominant Western culture credits Captain Cook with bringing the pig to New Zealand, even

though many Maori Elders state that they “always had the pig” and that they “brought their pig with them in the canoes” when they came over from Tahiti. She finished her explanation with the following question: “Why are [the colonizers] always trying to take credit for our sacred things?”

Based upon this conversation, more research should be done globally to determine whether or not such techniques were universally utilized by the dominant cultures as a tactic of colonization. Therefore, conducting interviews with other Indigenous Peoples around the world to see if such colonizing tactics – claiming ownership of the sacred in the form of animals and/or plants – were also used against them could be of import in creating a more complete understanding of the techniques and effects of colonization.

- 12.) *Development of a Theory Regarding Migratory Patterns of the Ancient North and South American Horses During and After the “Ice Age”*: Although the majority of Western academic articles and books state that the horse was among the animals that became extinct in the Americas during the late Wisconsin and early Holocene, most agree that “why they died out is unclear, particularly since they have flourished in the wild since the Spaniards reintroduced them into North America five centuries ago.”⁵⁴⁹

Indeed, this research project has not unveiled any proof as to why extinction would have occurred at all, especially since the following are true: horses are migratory animals, expansion of the glaciers [during the Ice Age period took] thousands of thousands of years ... and the same with the retreat of the glaciers,⁵⁵⁰ the glacier did not “extend further south than the Ohio River and Long Island, New York;”⁵⁵¹ there is evidence of the presence of refugia, or “special environmental circumstances that would have enabled a species or a community of species to survive after extinction in other areas” throughout the Americas during that time period;⁵⁵² and there is substantial evidence today that the wild horses or Native

⁵⁴⁹ Lange, *Ice Age Mammals of North America*, 131.

⁵⁵⁰ Groves, personal communication, October 17, 2016.

⁵⁵¹ Russell et al., “A Warm Thermal Enclave,” 175.

⁵⁵² Rowell, personal communication, October 18, 2016.

ponies are resilient and able to survive in a variety of extreme weather and environmental conditions.^{553 554 555} Indeed, some of these Native-line horse groups have even developed an immunity to diseases that plague domestic horse populations,⁵⁵⁶ suggesting that their history and genetic make-up differ significantly from domestic horses. Understanding what actually occurred during this Ice Age period and the migratory patterns of the horse may shed light on some of the other inconsistencies and “unanswered questions” that plague modern Western science and academia.

⁵⁵³ Rickman, B., personal communication, May 29, 2016.

⁵⁵⁴ O’ Hyde, personal communication, March 27, 2016.

⁵⁵⁵ Shoemaker, personal communication, June 24, 2016.

⁵⁵⁶ Rickman, B., personal communication, May 29, 2016.

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Appendices

Appendix A

The Creation of the Horse

With Harry Goldtooth

As published in *Leading the Way: The Wisdom of the Navajo People*

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After *Naayéé Neezáni*, Monster Slayer, and *Tóbáíishchini*, Born-for-Water, finished killing the *naayéé*, monsters, they had little to do around the hogan. Their mother *Yoolgai Asdzáá*, White Shell Woman, told them that their father had everything that was needed for life on Earth. The twins decided to go back to see their father *Jóhonaa' éi* once more.

When the twins arrived at the Sun's house, they saw a basket on a shelf, in the center of the house. A cornstalk with two ears of corn was growing inside the basket. Turquoise, stone horses, and all colors of corn were also in the basket.

Four stone horses were in the basket. One stone horse faced to the East, one faced to the South, one faced to the West, and one faced to the North. The horses were made out of white shell *hadahoniyé*, turquoise *hadahoniyé*, abalone shell *hadahoniyé*, and jet *hadahoniyé*. The horses ate the corn pollen that fell from the corn tassels.

Four posts facing the four cardinal directions were also in the basket. There were rattles made out of white shell on the post to the East, turquoise on the post to the South, abalone shell on the post to the West, and jet on the post to the North. There were live eagle plumes attached to the posts, and designs of the Sun and Moon were carved on the posts. The Sun told the Twins, "You are not to copy my posts with live Eagle feathers, but you may have ones without a feather."

A long time ago, Diné who knew this story had four posts about fifty feet away from the hoagn in the four cardinal directions. When digging the holes for these posts, people put white shell in the hole to the East, turquoise in the hole to the South, abalone shell in the hole to the West, and jet black in the hole to the North. White shell rattles were then placed on the poles. This assured the owner of having more and better horses.

When someone returned home, he tied his horse to the post facing the direction he came from. If somehow a horse broke loose, it would return by itself because of the post and because of the Mountain Soil Bundle inside the hogan.

When the Sun shook the white shell rattle, the horses would begin to move as if they were alive. This is how the Sun gave them exercise. The Sun also did this to give energy to animals, plants, and all things upon the Earth.

The Sun opened his doors, and the Twins saw all kinds and sizes of horses. To the East, there were horses with white bodies with all kinds of blue designs and spots. To the South, there were blue horses with white spots and designs. There were also horses with white finger marks and a blue background. To the West, there were yellow horses with black and white spots, and to the North, there were black horses with yellowish red noses and white spots all over them.

Suddenly the Sun opened a trap door in the center of the floor. The Twins saw a huge horse. It was a workhorse, with hooves about a foot in diameter. The Sun then opened a second door under the first trap door, and there was a horse with a curly mane, tail and hair. This horse was eating locoweed. It was crazy and not worth much. If all of these horses had not been alive, our horses today would not be alive.

The Twins didn't want any of the horses in these rooms. They wanted to have the stone horses. The Sun told them, "White Shell Woman has these horses and she knows the songs to go with them to raise them correctly. Since she won't tell you the songs, go to *Sisnaajini* and get them from your brother. He is called *Ch'al Hastiin*, Frog man."

The Sun gave the twins two Eagle feathers in case they needed help on their journey to *Sisnaajini*. This tells us that if you mind your father and do as he says, he might say, "Here is something for you." He might give you something the way the Sun gave his sons something to help them.

Before the Twins left the house, the Sun told them about the loco horse. He said, "Later, horses will die from this weed. They will die so the number of animals will be lessened. When there are too many horses upon the Earth, I will send loco weeds and horses will die from this. That is how I will get my horses back." Whenever a horse dies and the flesh is gone, the bones also go somewhere. Somehow they go back to the Sun's house.

When the Twins arrived home, they started off for *Sisnaajini*. In the distance, they thought they saw a horse near their brother's home. It wasn't a horse, but rather a plant. It was a gray rabbitbrush, *gahtsodaa*. Another plant there was called *dik'ózhi*, salt brush. In the distance they saw other grasses: *nidillidi*, a grass that was curly; *tl'ohmástasi*, foxtail; and *tl'oh cósi*, a

grass that had a bushy top and was about two and a half feet high. The twins saw these plants bunched together.

It turned out that these are the plants horses feed on. The Twins went over to see these plants four different times. They looked for the horses, but they found nothing.

The twins saw fire for four nights. On the last night, they put up two posts to point out the direction in which they saw the fire. This is where the white man got his telescope. In the morning, Monster Slayer looked through his two posts and saw about where the fire had been. The Twins went over there, and found a hole in the ground. The hole was in *Sisnaajii* itself.

The Twins looked down into the hole, then crawled into it. They found a large lake with a lot of weeds on the surface of the eastern side. There were waterweeds, long reeds, and pollen on the shore. The pollen was what the horses ate. There were all kinds of horses there.

Monster Slayer saw a dark, heavy-set man with a big neck and throat. He looked like a frog, or someone with the mumps. The man came towards them. He said, "What are you doing roaming around here? This is no place for Earth People to be." It was *Ch'al Hastiin*, whose mother was one of the Sun's thirty-three wives.

Ch'al Hastiin was loaded up with all kinds of white shell, turquoise, abalone shell, and jet, which were sewn onto his clothes and worn like jewelry. He was a deity who lived in the water. His clothes were made out of frog skin.

There were many sheep down there, as well as gray, white, brown, and black goats with stripes on their faces and running down their backs. All kinds of animals that live on Earth today were there. Until that time, there were no animals on Earth that could be used by people. Some animals and horses on Earth belonged to the deities, but none belonged to the people.

Cattle are not afraid of water or mud today because they were put in the water when they were created. Cattle will get caught in swamps, but are sometimes still alive days later.

The Twins told *Ch'al Hastiin* that they had gone to their father and mother for horses, but had not gotten any. White Shell Woman had a basket full of everything, just like the Sun, but she wouldn't give her things to anyone, not even her sons. She thought they had been naughty and selfish.

Ch'al Hastiin said, "I have everything, just like White Shell Woman. Why did you come here? Do you want one of my horses, sheep, or goats?"

The Twins answered, “No, we do not want the live animals. We want the *hadahoniyé* horses.”

Ch'al Hastiin picked up the basket made of turquoise, which was about the same size and shape as a wedding basket. He put white shell, turquoise, abalone shell, and jet *hadahoniyé* horses in the basket. Then he put corn pollen on top of the four horses. He told the Twins, “Take this basket and put it on top of *Sisnaajini*, but do not watch it. Go home, then come back in four days. You can go look at the basket before the Sun comes up.”

The Twins did as *Ch'al Hastiin* told them. When they came back to the basket on the fourth day, one of the *hadahoniyé* horses was gone. When the twins blinked their eyes, the *hadahoniyé* horses changed from rock into live horses. When the Twins blinked again, the horses turned into *hadahoniyé*, but the second horse was missing. It was the female blue horse to the South. The horses changed every time the Twins blinked, until finally all four horses were missing. The horses to the East and West were male, and the one to the North was female.

The Twins started to look for tracks. They found a single print to the East. The print was the same size as horses' hoofprints are today. The Twins made a circle and found two tracks. The third time they circled, they found three tracks. The fourth and last time they circled, they found four tracks. All the tracks led East.

The Twins searched until they found the horses. They had been stolen by five people: Coyote, Owl, Vulture, Crow, and Magpie. These people looked like us, but they were gambling people who had lost all of their property. That is why they had stolen the horses. People now gamble and steal money or anything off of others because of what these five people had done.

Owl, *Né'éshjaa'*, had a face like us, but a hump on its nose and wore feathers as clothes. Vulture, *Jees hóó'*, had a face like us, but it was bald, with only a small fringe of hair around the top. It too wore feathers like clothes. Crow, *Gáagii*, had hair like us with a large nose and feathers for clothes. Black Bird, *Ch'agii*, was a nice-looking person like us, with a large nose and feathers for clothes. They all had designs on their clothes. In the springtime, all of the birds and animals took their designs off, as if they were clothes. They grew their clothes, yet they could take them off as we take off our clothes today. Coyote, *Ma'ii*, wore clothes of fur and had a long tail.

These five were looting people who stole from others. They asked the Twins, “What are you doing here? No Earth People belong here.” They were caught red-handed, and they were angry.

Nonetheless, the five thieves explained, “We are your brothers.” In truth, they were half-brothers to the Twins. Each of them had a mother who was the wife of the Sun.

The thieves declared, “You are the only ones on Earth to be given the horses. From now on, when the horses die, we will feed on there. Coyote will have meat and bones – everything. Vulture will get the remains. Magpie will get the backbone meat, and Crow will take the eyes.” Owl declared, “I will be a fortune teller,” as he got no meat. So this is how the birds are when they find dead animals today. If this had not happened in those days, it wouldn’t be happening now.

The Twins took the horses back towards their Hogan. The Sun saw all this through the Dawn, and he rose until he got to where the basket and the Twins were. He said to the Twins, “I know those five deities are my children and that they are naughty. They never *ask* for animals or how to take care of them. That is why they never got any of them. You asked for animals, and that is why you were given the horse.”

After this visit, the Twins took their basket of horses to their mother’s Hogan. When they arrived White Shell Woman said, “It is a good thing for you to ask for these things. You need to take good care of them. I have everything here.” As the horses stepped out of the basket, they became full sized. If they stepped back into the basket, they became miniature horses again.

That morning the Twins again saw four horses in the distance. Monster Slayer ran over and met with the horses. The first horse was a pure white male made out of white shell. The second was a female turquoise horse, the third was a male abalone, shell horse, and the fourth was a female jet-black horse. These plus the four *hadahoniyé* horses made eight horses in all. When Monster Slayer blinked his eyes the horses turned into real people. When he blinked a second time, they turned back into horses and ran away from him.

When Monster Slayer rounded up the horses, he found that there was no stud, so he had to put them in the corral to protect them. His corral was about fifteen feet wide. He filled up the corral with all eight of this horses.

When he came up to the horses he had acquired last, the first horse had turned into a young man. The second horse had turned into a young woman, the third into a young boy, and

the fourth into a young girl. They asked Monster Slayer, “Is that you, (his secret name)?” Monster Slayer answered, “Is that you, (their secret name)?” These questions were asked four times back and forth. *Ch'al Hastiin* had told him the names of these horse people. After the fourth time, Monster Slayer began to sing a song and all the people turned into horses and ran away.

On the fourth morning, Monster Slay found a small, curly-haired horse about three and a half to four feet high. He thought it would be of no use to make this horse his stallion, for it was too small. *Nilch'ih*, Holy Wind, told Monster Slayer, ‘This is a good horse,’ so Monster Slayer made his horse his stud and raised many horses from it.

The *hadahoniyé* horses were kept in the basket. White Shell Woman taught the Twins how to take care of all of the stock and sing songs to make them produce and grow. After the Twins learned these songs, White Shell Woman told them, “You can have the *hadahoniyé* horses now, for you have learned how to care for them.”

Appendix B

Explanation of the Origin of Horses (a)

Fieldwork gathered on the Blackfeet Reservation, Montana

Ewes, J.C. (1980) *The Horses in Blackfoot Indian Culture*. Washington, D.C.: Smithsonian Institution Press.

As told by Short Face, a “Piegan Elderly” Traditional Knowledge Bearer, in fall of 1943.

Many years ago, when people used dogs for moving camp, there lived a Piegan named Wise Man. He and his wife were a handsome couple, but they wore very plain buckskin clothes. One day Wise Man said to his wife, “I have been thinking about something. If my plans work out we shall have very fine clothes. Let’s move away from here and make camp in the woods. I’ll collect all of the wood that you need, but you must not break any of the sticks I bring in.”

Wise Man and his wife moved to the woods. After he had brought in wood, he told his wife, “Now I shall go up the hill and catch some eagles.” He ascended the hill, dug a pit, found a dead coyote and cut it open, placed a roof of sticks over the pit after he had climbed into it, and tied the coyote on the roof. When eagles saw the coyote they swooped down and began pecking at the carcass. Wise Man grabbed each eagle in turn as it ate, pulled it into the pit and wrung its neck. He caught eight eagles. Then he returned to camp and told his wife, “I shall make myself a bonnet from these feathers.” He made his bonnet – a circle of feathers standing straight up, with a feather trailer down the back. Then he fashioned some weasel snares and went about the countryside snaring weasels. He took them to his wife and said, “Now tan these.” She replied, “But what are you going to do with them?” “I shall use them to decorate my suit,” said Wise Man. She tanned the weasel skins and sewed them on his plain buckskin suit as fringe, just as he requested. Then he donned his new costume and asked her, “How do I look? Take a good look at me.” She looked him up and down admiringly and replied, “You are very handsome looking man.” Wise Man then said, “I am completely dressed. Now I shall show you how to dress.”

He went into the woods and found an elk lick with many elk around it. With bow and arrows he killed a large number of them. From each he took only two teeth. He carried them to camp and drilled a hole near the base of each tooth. Then he showed the elk teeth to his wife and told her how to sew these teeth on her plain elkskin dress. When she had done that, she put on her dress, stood before her husband and asked him, “Now, how do I look?” Wise Man replied, “You are certainly a very beautiful woman. That is how I want you to look when you have occasion to wear your best clothes.”

The couple then returned to the camp of their people. When the others saw their fine clothes, all the young men and women wanted their garments. They offered to barter their most valuable possessions for them. But Wise Man refused, saying, "I will not sell these clothes. You must hunt and make them for yourselves just as we have done. But I am going back to the woods and I shall make another outfit which I shall trade you."

So, Wise Man and his wife returned to their former camping place in the woods. There he met a man. The stranger said to him, "I shall help you. You haven't fixed that bonnet right. You should have quills on the feathers. You should have quills on your leggings and shirt too." Wise Man had never heard of quills and he asked, "But how shall I get these things you call quills? How shall I learn to fix them on my bonnet and shirt?" "Thunder shall show you how to do that," the man replied. "But I have never seen Thunder," said Wise Man. "Where is he?" The stranger explained, "He lives above. You follow along the mountains to the end of the earth. There you will find a way to go to him."

Wise Man went to his wife and told her of his talk with the stranger. "A man came to me who told me how I can make my clothes even prettier by putting quills on them. He named someone who could help me do this. I don't know who that is, but he told me how to find him." His wife answered, "All right, go look for him."

So, Wise Man loaded his dog and went away, following the foot of the mountains. He passed mountain lions, bears and other large animals but they did not harm him. Some of them turned into persons. Finally, he reached the end of the mountains. Ahead was nothing but water. The shore was thick with brush. Wise Man climbed a cliff and looked down. In the brush he saw a lodge. He descended and entered the lodge. It was empty. After a long time a man entered and spoke to him. "Where are you going? You can't go any farther." Wise Man replied, "I'm going to find Thunder." The man said, "He is in the sky. You can't go there. But I shall help you, my boy. Climb this cliff and you will find some goats. Kill one, cut off the ends of his horns and bring them back here."

Wise Man did as he was told. When he returned with the pieces of horn the man told him, "I will give you my moccasins. Fasten these goat horns to them and they will help to hold you up. I shall help you. Follow me." They began to ascend, Wise Man following in the footsteps of the stranger, who had told him to look only ahead. After they had climbed a long time they reached a level place. It was another world.

Then the stranger turned to Wise Man and said, "This is Thunder's home. After you have walked a way you will be surrounded by horses. They are dangerous animals, but they will not hurt you. I shall leave you here. Go on to Thunder's camp. The first animals you meet will be Thunder's horses."

Wise Man walked on until he saw the horses. One of them spied him, and all came toward him and surrounded him. At first Wise Man was afraid. But the strange animals did not harm him. He soon lost his fear and began to pet them. They were so thick around him he could not proceed. But when night came they all lay down and went to sleep. Then Wise Man crawled away from them and walked down toward the lights of two camps in the distance. When he came near them he saw that they were beautifully painted lodges, each with a medicine pipe in front of it. He walked inside one of them. Thunder was there.

When Thunder saw Wise Man he told him to sit down. The Thunder made a smudge and began to show Wise Man the ritual of the medicine pipe. Wise man told him, "I came here to find out how to look good in my clothes. I want you to tell me what to do and how to do it. That is what is on my mind." Thunder replied, "My boy, come with me and I will show you." Outside the lodge Thunder pointed to a porcupine and told Wise Man, "Kill it." This Wise Man did. Then Thunder showed him how to remove the quills, how to flatten them, to dye them different colors and to sew them on garments. When he had finished, Thunder said, "My boy, you have been good. You didn't frighten my horses. They didn't hurt you. They are the animals I ride. Because you did not frighten my horses and they were not afraid of you I shall give you some of them. I'll show you the songs of my pipe and my painted lodges and give them to you also. I'll show you how to pack the pipe on a horse's back. But before I give you all these things you must pay me." Wise Man asked, "What shall I give you?" Thunder said, "Give me a woman from your people, and give me a white buffalo robe." Wise Man asked, "How are you to get the woman?" Thunder replied, "My boy, I can do it with your help." Wise Man then said, "I shall get you a woman." But the white buffalo is very fast. I'll try to get you a white buffalo robe, but it will be very difficult."

Then Thunder went to his herd and selected 10 head of horses, and gave them to Wise Man saying, "Now, my boy, take these. They will raise colts for you and increase. I shall put a porcupine on earth. It too will increase. You can kill porcupines, eat them, and use their quills. Generation after generation of your people will use these things. There will be no end to them. I

want you to take the medicine pipe, and in the Spring of the year when the leaves begin to come out you will hear me rumbling. Gather your friends quickly and dance to the medicine pipe as I have shown you. I shall see you then and know that you have heard my call. Until the end of the world you will have these things. Not until then shall I take them back.”

Thunder then said, “Now my boy, I’ll take you down. Tie the tails of two old mares together. When you have done that you will be on earth again. Tonight there will be a strong wind. If your lodges fall down or if your horses become frightened, I’ll take them back. Otherwise, you may keep them. In future times many of your old people, to whom I shall give the power, will dream of animal-painted lodges and sacred pipes.”

The night after Wise Man’s return to earth there was a storm and a very high wind. But the horses were not frightened and the lodges did not fall. Wise Man kept the things Thunder gave him. Until this day the Indians have porcupines, painted lodges, medicine pipes, and horses.

Appendix C

Explanation of the Origin of Horses (b)

Fieldwork gathered on the Blackfeet Reservation, Montana

Ewes, J.C. (1980) *The Horses in Blackfoot Indian Culture*. Washington, D.C.: Smithsonian Institution Press.

As told by Chewing Black Bones in March 1943, as told to him by Head Carrier, who died half a century earlier.

“Water Spirit’s Gift of Horses”

A long time ago there was a poor boy who tried to obtain secret power so that he might be able to get some of the things he wanted but did not have. He went out from his camp and slept alone on mountains, near great rocks, beside rivers. He wandered until he came to a large lake northeast of the Sweetgrass Hills (Lake Pakowki). By the side of that lake he broke down and cried. The powerful man who lived in that lake heard him and told his son to go to the boy and find out why he was crying. The son went to the sorrowing boy and told him that his father wished to see him. “But how can I go to him?” the lad asked. The son replied, “Hold onto my shoulders and close your eyes. Don’t look until I tell you to do so.”

They started into the water. As they moved along the son told the boy, “My father will offer you the choice of the animals in this lake. Be sure to choose the old mallard and its little ones.”

When they reached his father’s lodge, the son told the boy to open his eyes. He did so and was taken into the father’s lodge. The old man said to him, “Son, come sit over here.” Then he asked, “My boy, why did you come here?” The boy explained, I have been a very poor boy. I left my camp to look for secret power so that I may be able to start out for myself.” The old man then said, “Now son, you are going to become the leader of your tribe. You will have plenty of everything. Do you see all of the animals in this lake? They are all mine.” The boy remembering the son’s advice said, “I should thank you for giving me as many of them as you can.” Then the old man offered him his choice. The boy asked for the mallard and its young. The old man said, “Don’t take that one. It’s old and of no value.” But the boy insisted. Four times he asked for the mallard. Then the old man said, “You are wise boy. When you leave my lodge my son will take you to the edge of the lake. When it is dark he will catch the mallard for you. When you leave the lake don’t look back.”

The boy did as he was told. At the margin of the lake the water spirit’s son collected some marsh grass and braided it into a rope. With the rope he caught the old mallard and led it

ashore. He placed the rope in the boy's hand and told him to walk on, but not to look back until daybreak. As the boy walked along he heard the duck's feathers flapping on the ground. Later he could no longer hear that sound. As he proceeded he heard the sound of heavy feet behind him, and a strange noise, the cry of an animal. The braided marsh grass turned into a rawhide rope in his hand. But he did not look back until dawn.

At daybreak he turned around and saw a strange animal at the end of the line, a horse. He mounted it and, using the rawhide rope as a bridle, rode back to camp. Then he found that many horses had followed him.

The people of the camp were afraid of the strange animals. But the boy signed to them not to fear. He dismounted and tied a knot in the tail of his horse. Then he gave everybody horses from those that had followed him. There were plenty for everyone and he had quite a herd left over for himself. Five of the older men in camp gave their daughters to him in return for the horses he had given them. They gave him a fine lodge also. Until that time the people had only had dogs. But the boy told them how to handle the strange horses. He showed them how to use them for packing, how to break them for riding and for the travois, and he gave the horse its name, elk dog. One day the men asked him, "These elk dogs, would they be of any use in hunting buffalo?" The boy replied, "They are fine for that. Let me show you." Whereupon he showed his people how to chase buffalo on horseback. He also showed them how to make whips and other gear for their horses. Once when they came to a river the boy's friends asked him, "These elk dogs, are they of any use to us in water?" He replied, "That is where they are best. I got them from the water." So he showed them how to use horses in crossing streams.

The boy grew older and became a great chief, a leader of his people. Since that time every chief has owned a lot of horses.

Appendix D

Explanation of the Origin of Horses (c)

Fieldwork gathered on the Blackfeet Reservation, Montana

Ewes, J.C. (1980) *The Horses in Blackfoot Indian Culture*. Washington, D.C.: Smithsonian Institution Press.

Told by Mrs. Cecile Cree Medicine in July 1947, as told by her father Running Crane, Chief of the Lone Eater's band of the Piegan.

"How Morning Star Made the First Horse"

Before the Piegan had horses, they had dogs. Then everything was flint. There was no iron.

One night a Piegan invited all the chiefs to his lodge. He told his wife, "You sit outside with the baby." Her sister saw her sitting there and asked her what she was doing outside alone. She replied, "My husband does not want me to be in the lodge with the chiefs." She was very unhappy. Later she looked into the sky and saw the bright morning star. She said, "I wish I could be married to that pretty star up there."

Next morning she went to pick up buffalo chips for fuel. She saw a young man approaching her. He said, "Now I have come for you." But she replied, "I will have nothing to do with you. Why do you want me to go away with you? I'm married." Then the young man reminded her, "Last night when you were sitting outside your lodge you said you wanted to marry me, the bright star. I heard you and now I have come for you." She replied, "Yes, that's right. Let's go."

Then the young man said, "Take hold of my back. Follow me but keep your eyes shut." She did as she was told. After a time the young man told her to open her eyes. When she did she saw that the country was strange to her. Young Morning Star then asked her into his lodge where an old man was sitting. He was Sun, Morning Star's father. Sun said, "My son, why did you bring this girl here?" The young man answered, "It was the girl's wish. So I went after her."

After a time Morning Star and this woman had a little boy. Old grandfather Sun said, "I shall give the boy something to play with." He gave him a crooked tree which was every bit the shape of a little horse, and said, "Now my boy, play with this." When Morning Star saw his son playing with the wooden toy he said to his wife, "Wouldn't it look better if this plaything had fur like a deer?" She agreed. So they put fur on it. Then Morning Star said, "Another thing it should have is a tail." So he put a black tail on it and added some ears as well. Then he said, "Now let's take some black dirt and rub its hoofs so they will shine." So it was done.

Then his wife said to the Morning Star, "Now you are finished. Are you satisfied?" "No," replied Morning Star, "Put the boy on the animal's back. Let him ride it." When the boy was astride the toy, Morning Star said, "Now I shall make it go. I shall call sh-sh-sh-sh four times. The fourth time it will start like an animal." The first time Morning Star called, the horse began to move its legs. The second time, the horse began to move its tail. The third time it moved its ears. When he called sh-sh-sh-sh the fourth time the horse shied. Then Morning Star called, "ka-ka-ka-ka," and the horse stood still. Morning Star cut a piece of rawhide for a bridle. The boy had great fun with this little horse.

Later when the boy's brothers and sisters went to dig wild turnips, his mother asked Morning Star, "Why can't I do that?" He told her she might go with the others, but she must not dig the turnip with the big leaves. So she joined the party. She saw the big-leafed turnip and began to dig around it. At last she dug it up. Dust came through the hole. When the dust cleared away she looked into the hole and way below she saw her own camp and her parents. She began to cry.

When she returned to Morning Star's lodge he saw her swollen eyes and knew what had happened. He asked her, "Why are you crying?" She told him that she was lonesome for her parents. Morning Star then told her that she could return to them. He instructed his people to cut rawhide rope. They made a great pile of it. Then he told his wife, "I'll take you down the rope first. Then I'll take the horse down by my own power." He wrapped his wife and son in buffalo robes, tied them to the rope, and lowered them through the turnip hole.

Two young fellows lying on their backs near the camp of the woman's parents saw a strange object descending from the sky. They were frightened and started to run away when the bundle reached the earth. But the woman called to them, "Untie me." They untied her and went to camp to tell the woman's husband that she was back. When her husband saw the little boy he told his wife, "I don't want him here. Don't feed that boy. Don't give him any bedding. Let him sleep by the door." The woman was watched so closely she couldn't help her son. A half-brother took pity on the little boy. He hid some of his own food and gave it to the little boy to keep him from starving.

Morning Star saw how badly his son was being treated on earth. One day when the half-brother took the boy into the brush hunting they saw a strange man. They were afraid and started to run when the man called, "Stop!" They halted and sat down beside the man. He told the little

boy, "You are my son. I know your brother loves you and had fed you. But I have come after you because you have been abused." The little boy began to cry. "No I want to stay with my brother." Then Morning Star explained, "Three of us cannot go. I can only take you. But I promise you I'll give your brother some great power here on earth."

Before he departed Morning Star told the older boy, "Go to that lake yonder. Sleep beside it for four nights. I'll give you power. The man in that lake will help you too. But I warn you that before sunrise, while you are sleeping, animals like I gave your little brother will come out of the lake. When you wake, pay no attention to the other horses. Just try to catch the little, shaggy, buckskin colt. If you catch that colt all the other horses will stop beside him. If you don't catch him, all will run back into the water."

The morning after the older brother's first night by the lake he tried to catch one of the pretty colts rather than the ugly little buckskin Morning Star had told him to get. All of the horses ran back into the lake. The second morning the older brother tried again and failed. The third morning all of the horses got away once more. During the fourth night Morning Star came to the boy in his dream and said, "Now, my boy, I told you to catch that shaggy buckskin colt. If you don't catch him tomorrow you will not have my power."

Next morning when the boy awoke he saw the horses again. This time he singled out the little colt and roped him with a rawhide line. All the other horses stampeded toward the lake. As the leading ones reached the shore the little buckskin whinnied. They all turned and ran back toward him. On the fifth night Morning Star again appeared to the boy in his dream, saying, "Now, my boy, when you return home with these horses give everyone but your father a horse. Because he abused you, he shouldn't have any."

When the boy returned to the camp and distributed the horses, his father became very angry. "Why didn't you give me one of them?" he raved. The boy, with Morning Star's power, struck his father and killed him.

Morning Star then told the boy, "From now on your people will have horses. You will no longer need to use dogs. In time you will have many horses. Your horses will never disappear. You need never walk anymore."

The principal chief of the camp sent word to the boy that he wanted him for a son-in-law. He gave the boy his two daughters and offered him his place as head chief.

Appendix E:

Table Summarizing Data Regarding Medicinal Plants

Below is a table summarizing data regarding some of the medicinal plants that certain tribes utilized to cure their horses. As printed in: Schuessler, Raymond. "Indian Horse Healing." *Real West: True Tales of the American* (May 1975):10, 59.

PLANT MEDICINES USED AS HORSE STIMULANTS BY OTHER TRIBES		
Tribe	Plant	Use
Arapaho	Probably wild peony (<i>Paeonia brownii</i>).	Root rubbed on nose of tired horse to refresh it.
Cheyenne	<i>Anaphalis margaritacea</i> var. <i>subalpina</i> .	Dried and powdered flowers placed on sole of each hoof and blown between horse's ears to make it long-winded and untiring.
	<i>Thalictrum sparsiflorum</i>	Dried and ground to fine powder, administered by mouth to make horse spirited, long-winded, and enduring.
Gros Ventres	Niitsican (Native name) "hollow root" Unidentified.	Given to horses to strengthen and refresh them.
Nez Perce	<i>Clematis douglassii</i>	Scraped end of root held in nostrils of a fallen horse. Immediate stimulating effect.
	<i>Paeonia brownii</i> , wild peony	Chewed root placed in horse's mouth and held shut until horse swallowed to stimulate horse swallowed to stimulate exhausted horse.
Omaha	<i>Laciniaria scariosa</i>	Corn-chewed and blown into horse's nostrils to make it long-winded. Flower heads mixed with shelled corn fed to horses to make them swift.
Pawnee	<i>Ionoxalis violacea</i> , sheep sorrel; and <i>Xanthoxalis stricta</i> , yellow wood sorrel.	Bulbs pounded and fed to horses to make them fleet.
Sarsi	(?)	A herb or root administered to give horse surpassing speed.
Teton Dakota	<i>Clematis douglassii</i>	Dried and powdered root administered by nostrils to stimulate tired horses when hard pressed by enemy.
Ute	Wild peony.	Root chewed and placed in horse's mouth to give it long wind.

Appendix F

The Tale of the Wind Horse

By Tipi Pinti, November 1984, The Bishinik, p. 5

At the time when day and night were still deciding who comes first, there lived a horse that will never be seen again. The horse was not one that would become as the dying buffalo, for this horse had no enemies. The reason that this horse would not be seen again was because of love. It is a story that begins this way.

The horse, who was called Wind Horse, was the fastest and gentlest of all the Indian ponies. He felt no fear that there was not one that would harm him. If there was an Indian wounded or that needed a ride, Wind Horse was there to care and to carry the Indian. Because of the kindness of Wind Horse, there is no more.

One day, as Wind Horse was feeling the good feeling from being free, he heard a cry for help. He ran to the edge of the forest and saw an Indian child Boy caught in a trap meant for Bear. The Boy's foot was cut off and the Boy could not move. Wind Horse went to the side of the Boy and as the Boy leaned against him, he bent to let the Boy get on his back.

The Boy, who had no name, could not believe that this beautiful horse would come to him as a friend. All his life he had lived alone, for with his bad leg no one wanted him. As he rode the wind on the horse, he could feel the good feeling that Wind Horse felt. It was if he were whole and that he was with family.

Wind Horse knew that the wound that the Boy had was one that could not be fixed or healed. He was taking the Boy to the place of the Indian Hunting Ground. This place was where all were made whole and had no fear or need. Wind Horse felt sadness that one as young as this Boy had to go to the Ground but he knew that it would be for the best.

As they traveled, the Boy noticed that the trail was always changing. First it was as it was when the Boy had been hurt, then it was as it was when he had been happy. Then it was the time when he had been not born. Soon he saw things that he did not recognize. The Boy became more close to Wind Horse, for he began to fear.

Wind Horse had seen the times and had seen the Boy and his life. And he had felt the feelings of the Boy. Wind Horse knew that if he continued this ride, he would not be free

anymore. For the feelings that the Boy felt were now becoming the feelings of Wind Horse. For Wind Horse was the last of his race, the race of horses that would feel the feeling of the rider.

Should the rider remain on the Horse of Wind, the horse would share the fate of the rider, for then a bond would be made that would not and could not be broken. Wind Horse knew of this bond, and, as a result, always put off the rider before any bond was made. This time, thought, Wind Horse, knew this would be his last rider.

As they traveled, the Boy began to talk to Wind Horse and Wind Horse listened. He listened to the hopes of the Boy that someday he would run with the leaves that blew across the ground. He listened as the Boy wished for someone to care and love the Boy who had the bad leg. As Wind Horse listened, he began to feel the love for the Boy that the Boy had wanted to give to a friend.

“Yes,” Wind Horse thought, “This is my last ride for I have found one that needs the feelings that I can give. Since I am the last of my race, I will spend the rest of my time with the one that can and will give the feelings that I need.”

Wind Horse turned his head and nuzzled the Boy’s head. He began to slow, for the end of the journey was near. The Boy looked up and saw the home of those who had gone before. He realized that his journey was the last one that he would ever make. He began to feel fear. But as the Horse stopped to let the Boy down, the Boy realized that he had two good legs and that all his wounds, hunger, need, and hurt were gone. The Horse made no move to leave and the Boy knew that the Horse had also made his last journey.

Wind Horse had never brought his riders to the Hunting Ground, so he was not familiar with the place. He had a new world to explore and he had a friend to explore it with. As Wind Horse and the Boy walked into their new world, the Indian People felt a great sadness. Even though the People could not know what was happening, the feeling of great loss and unhappiness was all around. Wind Horse could hear their cries of despair, but he knew that with the passing of many suns and moons, they would soon forget him and his race.

Wind Horse had made his last journey. He would miss all his travels and the friends that he had made and helped along the way. He prayed to the Great Spirit to send a reminder to the Indian People of the friendship that he and the Indian People had shared. And, with Wind Horse’s prayer, the Horse was given to the Indian People as friends.

Appendix G:
IRB Approval Letter



(907) 474-7800
(907) 474-5444 fax
uaf-irb@alaska.edu
www.uaf.edu/irb

Institutional Review Board

909 N Koyukuk Dr. Suite 212, P.O. Box 757270, Fairbanks, Alaska 99775-7270

April 11, 2016

To: Ray Barnhardt, PhD
Principal Investigator
From: University of Alaska Fairbanks IRB
Re: [744747-2] The Relationship Between the Indigenous Peoples of the Americas and the Horse

Thank you for submitting the Continuing Review/Progress Report referenced below. The submission was handled by Expedited Review under the requirements of 45 CFR 46.110, which identifies the categories of research eligible for expedited review.

Title:	The Relationship Between the Indigenous Peoples of the Americas and the Horse
Received:	April 6, 2016
Expedited Category:	7
Action:	APPROVED
Effective Date:	April 11, 2016
Expiration Date:	April 17, 2017

This action is included on the May 4, 2016 IRB Agenda.

No changes may be made to this project without the prior review and approval of the IRB. This includes, but is not limited to, changes in research scope, research tools, consent documents, personnel, or record storage location.

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